

Food Matrix Reference materials

食品基质标准样品

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Food Matrix Reference materials

奶及奶制品

编号	描述	规格
LGC7104	灭菌奶油-营养元素	170 g
BCR-380R	全脂奶粉-主要营养素	100 g
BCR-685	脱脂奶粉-主要营养素	50 g
BCR-063R	脱脂奶粉-主要微量元素	50 g
BCR-150	添加标准物质的脱脂奶粉-微量元素	23 g
BCR-151	添加标准物质的脱脂奶粉-微量元素	23 g
ERM-BD282	全脂奶粉-黄曲霉毒素 M1(zero level)	30 g
ERM-BD283	全脂奶粉-黄曲霉毒素(low level)	30 g
ERM-BD284	全脂奶粉-黄曲霉毒素(high level)	30 g
BCR-187	天然奶粉-农药残留	20 g
BCR-188	添加标准物质奶粉-农药残留	20 g
BCR-450	天然奶粉-多氯联苯	20 g
BCR-607	喷雾干燥奶粉-二恶因和呋喃	100 g
BCR-519	无水黄油-甘油三酯	2 amps
BCR-632	黄油-胆固醇和甘油三酯	2 amps
BCR-633	无水黄油-示踪剂	Amp.
BCR-599	绵羊/山羊凝乳-掺杂牛奶	set (2)
BCR-122	人造黄油-维生素	200 g
BCR-492-3	冻干脱脂奶粉-土霉素	set

*详细参数参见表后数据

Code	Product	Unit																								
LGC7104	Sterilised cream - Proximates and nutrient elements 灭菌奶油-营养元素 LGC7104 is a cream product, sealed in cans in 170g portions. Assessed values <table><tr><td>Moisture</td><td>70.2 g/100 g</td><td>Ca</td><td>8 45 mg/kg</td><td>P</td><td>823mg/kg</td></tr><tr><td>Nitrogen</td><td>0.40 g/100 g</td><td>K</td><td>1 160 mg/kg</td><td>Zn</td><td>3.1 mg/kg</td></tr><tr><td>Total fat</td><td>22.7 g/100 g</td><td>Mg</td><td>84 mg/kg</td><td></td><td></td></tr><tr><td>Ash</td><td>0.58 g/100 g</td><td>Na</td><td>5 05 mg/kg</td><td></td><td></td></tr></table> Indicative values for Cl, Lactose	Moisture	70.2 g/100 g	Ca	8 45 mg/kg	P	823mg/kg	Nitrogen	0.40 g/100 g	K	1 160 mg/kg	Zn	3.1 mg/kg	Total fat	22.7 g/100 g	Mg	84 mg/kg			Ash	0.58 g/100 g	Na	5 05 mg/kg			170 g
Moisture	70.2 g/100 g	Ca	8 45 mg/kg	P	823mg/kg																					
Nitrogen	0.40 g/100 g	K	1 160 mg/kg	Zn	3.1 mg/kg																					
Total fat	22.7 g/100 g	Mg	84 mg/kg																							
Ash	0.58 g/100 g	Na	5 05 mg/kg																							
BCR-380R	Whole milk powder - Major nutrients 全脂奶粉-主要营养素 Certified values <table><tr><td>Crude protein</td><td>28.66 ± 0.28 g/100 g</td></tr><tr><td>(Kjeldahl-N x 6.38)</td><td></td></tr><tr><td>Fat</td><td>26.95 ± 0.16 g/100 g</td></tr><tr><td>Lactose (anhydrous)</td><td>37.1 ± 1.0 g/100 g</td></tr><tr><td>Ash</td><td>6.00 ± 0.13 g/100 g</td></tr></table>	Crude protein	28.66 ± 0.28 g/100 g	(Kjeldahl-N x 6.38)		Fat	26.95 ± 0.16 g/100 g	Lactose (anhydrous)	37.1 ± 1.0 g/100 g	Ash	6.00 ± 0.13 g/100 g	100 g														
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Ash	6.00 ± 0.13 g/100 g																									
BCR-685	Skimmed milk powder - Major nutrients 脱脂奶粉-主要营养素 Certified values <table><tr><td>Crude protein</td><td>38.2 ± 0.4 g/100 g</td></tr><tr><td>(Kjeldahl-N x 6.38)</td><td></td></tr><tr><td>Fat</td><td>0.96 ± 0.12 g/100 g</td></tr></table>	Crude protein	38.2 ± 0.4 g/100 g	(Kjeldahl-N x 6.38)		Fat	0.96 ± 0.12 g/100 g	50 g																		
Crude protein	38.2 ± 0.4 g/100 g																									
(Kjeldahl-N x 6.38)																										
Fat	0.96 ± 0.12 g/100 g																									
BCR-063R	Skimmed milk powder - Major and trace elements 脱脂奶粉-主要微量元素 Natural elemental levels in skim milk powder. Certified values <table><tr><td>Ca</td><td>13.49 mg/g</td><td>I</td><td>0.81 µg/g</td><td>Na</td><td>4.37 mg/g</td></tr><tr><td>Cl</td><td>9.94 mg/g</td><td>K</td><td>17.68 mg/g</td><td>P</td><td>11.10 mg/g</td></tr><tr><td>Cu</td><td>0.602 µg/g</td><td>Mg</td><td>1.263 mg/g</td><td>Pb</td><td>18.5 ng/g</td></tr><tr><td>Fe</td><td>2.32 µg/g</td><td>N (total)</td><td>62.3 mg/g</td><td>Zn</td><td>49.0 µg/g</td></tr></table>	Ca	13.49 mg/g	I	0.81 µg/g	Na	4.37 mg/g	Cl	9.94 mg/g	K	17.68 mg/g	P	11.10 mg/g	Cu	0.602 µg/g	Mg	1.263 mg/g	Pb	18.5 ng/g	Fe	2.32 µg/g	N (total)	62.3 mg/g	Zn	49.0 µg/g	50 g
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Cl	9.94 mg/g	K	17.68 mg/g	P	11.10 mg/g																					
Cu	0.602 µg/g	Mg	1.263 mg/g	Pb	18.5 ng/g																					
Fe	2.32 µg/g	N (total)	62.3 mg/g	Zn	49.0 µg/g																					
BCR-150	Spiked skimmed milk powder - Trace elements 添加标准物质的脱脂奶粉-微量元素 Milk spiked with Cd, Cu, Fe and Hg. Certified values <table><tr><td>Cd</td><td>21.8 µg/kg</td><td>Fe</td><td>1 1.8 mg/kg</td><td>I</td><td>1.29 mg/kg</td></tr><tr><td>Cu</td><td>2.23 mg/kg</td><td>Hg</td><td>9.4 µg/kg</td><td>Pb</td><td>1.00 mg/kg</td></tr></table> Indicative values for Co, Mn, Ni, Se, Ti, Zn	Cd	21.8 µg/kg	Fe	1 1.8 mg/kg	I	1.29 mg/kg	Cu	2.23 mg/kg	Hg	9.4 µg/kg	Pb	1.00 mg/kg	23 g												
Cd	21.8 µg/kg	Fe	1 1.8 mg/kg	I	1.29 mg/kg																					
Cu	2.23 mg/kg	Hg	9.4 µg/kg	Pb	1.00 mg/kg																					

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Code	Product	Unit
BCR-151	Spiked skimmed milk powder - Trace elements 添加标准物质的脱脂奶粉-微量元素 Milk spiked with Cd, Cu, Fe and Hg. Certified values Cd... 101.0 µg/kg Fe ... 50.1 mg/kg I ... 5.35 mg/kg Cu... 5.23 mg/kg Hg ... 101 µg/kg Pb ... 2002 mg/kg Indicative values for Co, Mn, Ni, Se, Tl, Zn	23 g
ERM-BD282	Whole milk powder - Aflatoxin M1 (zero level) 全脂奶粉-黄曲霉毒素M1(zero level) Compound Certified value µg/kg Aflatoxin M1 □ 0.002	30 g
ERM-BD283	Whole milk powder - Aflatoxin M1 (low level) 全脂奶粉-黄曲霉毒素(low level) Compound Certified value Uncertainty µg/kg µg/kg Aflatoxin M1 0.111 0.018	30 g
ERM-BD284	Whole milk powder - Aflatoxin M1 (high level) 全脂奶粉-黄曲霉毒素(high level) Compound Certified value Uncertainty µg/kg µg/kg Aflatoxin M1 0.44 0.06	30 g
BCR-187	Natural milk powder - Pesticides 天然奶粉-农药残留 Compound Certified value Uncertainty µg/kg µg/kg HCB ... 1.50 0.2 alpha-HCH ... 1.8 0.14 gamma-HCH ... 5.7 0.7 4,4'-DDE ... 6.6 0.6	20 g
BCR-188	Milk powder (spiked) – Pesticides 添加标准物质奶粉-农药残留 Compound Certified value Uncertainty µg/kg µg/kg HCB ... 37.4 2.7 beta-HCH ... 12.0 1.2 gamma-HCH ... 45.4 2.9 beta-Heptachlor epoxide ... 32.0 1.8 4,4'-DDE ... 51.3 3.5 Dieldrin ... 36.1 2.4 Endrin ... 6.2 0.9 4,4'-DDT ... 69.0 4.6	20 g
BCR-450	Natural milk powder - PCBs 天然奶粉-多氯联苯 Compound Certified value Uncertainty µg/kg µg/kg PCB 52 ... 1.16 0.17 PCB 118 ... 3.3 0.4 PCB 153 ... 19.0 0.7 PCB 156 ... 1.62 0.2 PCB 170 ... 4.8 0.6 PCB 180 ... 11.0 0.7	20 g
BCR-607	Natural spray dried milk powder - Dioxins and furans 喷雾干燥奶粉-二恶因和呋喃 Compound Certified value Uncertainty ng/kg ng/kg 2,3,7,8-TCDD 0.25 0.03 1,2,3,7,8-PeCDD 0.79 0.04 1,2,3,4,7,8-HxCDD 0.42 0.07 1,2,3,6,7,8-HxCDD 0.98 0.11 1,2,3,7,8,9-HxCDD 0.34 0.05 2,3,7,8-TCDF 0.05 0.03 1,2,3,7,8-PeCDF 0.054 0.013 2,3,4,7,8-PeCDF 1.81 0.13 1,2,3,4,7,8-HxCDF 0.94 0.04 1,2,3,6,7,8-HxCDF 1.01 0.09 2,3,4,6,7,8-HxCDF 1.07 0.05	100 g

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BCR-519	Anhydrous butter fat - Triglycerides 无水黄油-甘油三酯 Triglyceride contents of an anhydrous butter fat with additional value for free cholesterol.	2 amps.																																																																																																												
	<table> <tr> <th>Compound</th><th>Certified value mass fraction (%)</th><th>Uncertainty mass fraction (%)</th></tr> <tr><td>Cholesterol</td><td>0.30</td><td>0.03</td></tr> <tr><td>C24</td><td>0.05</td><td>0.02</td></tr> <tr><td>C26</td><td>0.25</td><td>0.03</td></tr> <tr><td>C28</td><td>0.59</td><td>0.04</td></tr> <tr><td>C30</td><td>1.15</td><td>0.05</td></tr> <tr><td>C32</td><td>2.43</td><td>0.12</td></tr> <tr><td>C34</td><td>5.64</td><td>0.18</td></tr> <tr><td>C36</td><td>10.47</td><td>0.19</td></tr> <tr><td>C38</td><td>12.53</td><td>0.22</td></tr> <tr><td>C40</td><td>10.03</td><td>0.16</td></tr> <tr><td>C42</td><td>6.69</td><td>0.10</td></tr> <tr><td>C44</td><td>6.11</td><td>0.08</td></tr> <tr><td>C46</td><td>6.86</td><td>0.08</td></tr> <tr><td>C48</td><td>8.69</td><td>0.15</td></tr> <tr><td>C50</td><td>11.40</td><td>0.24</td></tr> <tr><td>C52</td><td>10.96</td><td>0.25</td></tr> <tr><td>C54</td><td>5.89</td><td>0.13</td></tr> </table>	Compound	Certified value mass fraction (%)	Uncertainty mass fraction (%)	Cholesterol	0.30	0.03	C24	0.05	0.02	C26	0.25	0.03	C28	0.59	0.04	C30	1.15	0.05	C32	2.43	0.12	C34	5.64	0.18	C36	10.47	0.19	C38	12.53	0.22	C40	10.03	0.16	C42	6.69	0.10	C44	6.11	0.08	C46	6.86	0.08	C48	8.69	0.15	C50	11.40	0.24	C52	10.96	0.25	C54	5.89	0.13																																																							
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BCR-632	Butter fat - cholesterol and triglyceride 黄油-胆固醇和甘油三酯 BCR-623 consists of a 5 mL ampoule of BCR-632a and a 5 mL ampoule of BCR-632b Certified values BCR-632A Pure butter fat - Cholesterol and triglycerides 纯黄油-胆固醇和甘油三酯	2 amps.																																																																																																												
	<table> <tr> <th>Compound</th><th>certified value g/100 g</th><th>Uncertainty g/100 g</th></tr> <tr><td>C24</td><td>0.07</td><td>0.04</td></tr> <tr><td>Cholesterol</td><td>0.289</td><td>0.012</td></tr> <tr><td>C26</td><td>0.33</td><td>0.06</td></tr> <tr><td>C28</td><td>0.74</td><td>0.07</td></tr> <tr><td>C30</td><td>1.37</td><td>0.08</td></tr> <tr><td>C32</td><td>2.83</td><td>0.14</td></tr> <tr><td>C34</td><td>6.09</td><td>0.29</td></tr> <tr><td>C36</td><td>10.7</td><td>0.5</td></tr> <tr><td>C38</td><td>12.5</td><td>0.4</td></tr> <tr><td>C40</td><td>10.05</td><td>0.19</td></tr> <tr><td>C42</td><td>7.07</td><td>0.13</td></tr> <tr><td>C44</td><td>6.68</td><td>0.12</td></tr> <tr><td>C46</td><td>7.36</td><td>0.17</td></tr> <tr><td>C48</td><td>8.74</td><td>0.21</td></tr> <tr><td>C50</td><td>10.74</td><td>0.24</td></tr> <tr><td>C52</td><td>9.8</td><td>0.4</td></tr> <tr><td>C54</td><td>4.7</td><td>0.5</td></tr> </table> BCR-632B Adulterated butter fat - Cholesterol and triglycerides 掺假黄油-胆固醇和甘油三酯 <table> <tr> <th>Compound</th><th>certified value g/100 g</th><th>Uncertainty g/100 g</th></tr> <tr><td>C24</td><td>0.08</td><td>0.04</td></tr> <tr><td>Cholesterol</td><td>0.278</td><td>0.011</td></tr> <tr><td>C26</td><td>0.34</td><td>0.06</td></tr> <tr><td>C28</td><td>0.75</td><td>0.06</td></tr> <tr><td>C30</td><td>1.46</td><td>0.07</td></tr> <tr><td>C32</td><td>3.30</td><td>0.12</td></tr> <tr><td>C34</td><td>6.57</td><td>0.25</td></tr> <tr><td>C36</td><td>11.1</td><td>0.4</td></tr> <tr><td>C38</td><td>12.7</td><td>0.4</td></tr> <tr><td>C40</td><td>10.07</td><td>0.17</td></tr> <tr><td>C42</td><td>7.10</td><td>0.10</td></tr> <tr><td>C44</td><td>6.57</td><td>0.12</td></tr> <tr><td>C46</td><td>7.12</td><td>0.17</td></tr> <tr><td>C48</td><td>8.42</td><td>0.19</td></tr> <tr><td>C50</td><td>10.28</td><td>0.19</td></tr> <tr><td>C52</td><td>9.36</td><td>0.28</td></tr> <tr><td>C54</td><td>4.5</td><td>0.4</td></tr> </table>	Compound	certified value g/100 g	Uncertainty g/100 g	C24	0.07	0.04	Cholesterol	0.289	0.012	C26	0.33	0.06	C28	0.74	0.07	C30	1.37	0.08	C32	2.83	0.14	C34	6.09	0.29	C36	10.7	0.5	C38	12.5	0.4	C40	10.05	0.19	C42	7.07	0.13	C44	6.68	0.12	C46	7.36	0.17	C48	8.74	0.21	C50	10.74	0.24	C52	9.8	0.4	C54	4.7	0.5	Compound	certified value g/100 g	Uncertainty g/100 g	C24	0.08	0.04	Cholesterol	0.278	0.011	C26	0.34	0.06	C28	0.75	0.06	C30	1.46	0.07	C32	3.30	0.12	C34	6.57	0.25	C36	11.1	0.4	C38	12.7	0.4	C40	10.07	0.17	C42	7.10	0.10	C44	6.57	0.12	C46	7.12	0.17	C48	8.42	0.19	C50	10.28	0.19	C52	9.36	0.28	C54	4.5	0.4	
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BCR-633	Anhydrous butter fat - Tracers 无水黄油-示踪剂	Amp.																																																																																																												
	<table> <tr> <th>Compound</th><th>certified value mg/kg</th><th>Uncertainty mg/kg</th></tr> <tr><td>β-Apo-8'-carotenic acid ethyl ester</td><td>26.5</td><td>1.4</td></tr> <tr><td>β-Sitosterol</td><td>530</td><td>29</td></tr> <tr><td>Stigmasterol</td><td>147</td><td>11</td></tr> <tr><td>n-Heptanoic acid triglyceride</td><td>1.06 x 10⁴</td><td>0.04 x 10⁴</td></tr> </table>	Compound	certified value mg/kg	Uncertainty mg/kg	β-Apo-8'-carotenic acid ethyl ester	26.5	1.4	β-Sitosterol	530	29	Stigmasterol	147	11	n-Heptanoic acid triglyceride	1.06 x 10 ⁴	0.04 x 10 ⁴																																																																																														
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Food Matrix Reference materials

Code	Product	Unit
BCR-599	Ewes'/Goats' curd - Adulteration with cow's milk 绵羊/山羊凝乳-掺杂牛奶 Two freeze dried curd materials made from a mixture of ewes' and goats' milk intended to detect adulteration by cows' milk in cheeses made from ewes' milk, goats' milk and mixtures of the two. Unadulterated material 0% cows' milk Adulterated material 1% cows' milk	set (2)
BCR-122	Margarine – Vitamins 人造黄油-维生素 Certified values D ₃ (cholecalciferol) 0.125 mg/kg E (tocopherol)..... 241 mg/kg	200 g
BCR-492-3	Lyophilized skimmed milk powder – Oxytetracycline 冻干脱脂奶粉-土霉素 Set of BCR-492 and BCR-493 BCR-492 Certified value Oxytetracycline 307 µg/L BCR-493 Certified value Oxytetracycline <10 µg/L	set

Food Matrix Reference materials

奶、奶制品及部分其他食品-营养成分、营养元素及微量元素

相关参考物:

Fat, Free Fat, Dry matter (87 °C), Dry matter(102 °C), Protein, Lactose, Ash, Phosphorous, Water, Sodium chloride, pH value, Nitrate, Calcium, Magnesium, Lead, Zinc, Sodium, Cu, Mn, Fe, Potassium, Citric acid, Lactic acid, Freezing point, Saccharose, Theobromin, Glucose, Fructose, Hydroxymethylfurfural, Conductivity, Theobromine, Phosphorus, Hydroxyproline, Collagen, Solids non-fat (102°C), Cholesterol, NPN, Caseine, Saccharose, Starch, Vitamin C, Vitamin E, Phosphorus, Chloride

脂肪, 游离脂肪, 干物质 (87°C), 干物质 (102°C), 蛋白质, 乳糖, 灰分, 磷, 水, 氯化钠, pH 值, 硝酸盐, 钙, 镁, 铅, 锌, 钠, 铜, 锰, 铁, 钾, 柠檬酸, 乳酸, 凝固点, 蔗糖, 可可豆碱, 葡萄糖, 果糖, 羟甲基糠醛, 电导率, 可可碱, 磷, 羟脯氨酸, 胶原蛋白, 固体非脂肪 (102°C), 胆固醇, NPN 型, 酪蛋白, 蔗糖, 淀粉, 维生素 C, 维生素 E, 磷, 氯

编号	描述	规格
MUVA-RM 58	混合奶粉-营养元素	70 g
MUVA-RM 59	喷雾干燥奶粉-营养元素	70 g
MUVA-MP-0201	喷雾干燥脱脂奶粉-营养元素	70 g
MUVA-MP-0202	喷雾干燥脱脂奶粉-营养元素	70 g
MUVA-RM 71	乳清粉-营养元素	20 g
MUVA-RM 72	乳清粉-营养元素	20 g
MUVA-RM 73	乳清粉-营养元素	70 g
MUVA-RM 74	乳清粉-营养元素	70 g
MUVA-RM 803	乳清粉-微量元素	20 g
MUVA-RM 84	酸酪-营养元素	60 g
MUVA-RM 85	酪蛋白酸钠-营养元素	60 g
MUVA-KM-0501	淡炼乳 (7.4%脂肪) -营养元素	170 g
MUVA-KM-0502	淡炼乳 (4%脂肪) -营养元素	170 g
MUVA-KM-0503	咖啡奶油 (10%脂肪) -营养元素	100 mL
MUVA-RM 122	淡炼乳 (冻干) -铅	10 g
MUVA-RM 123	淡炼乳 (冻干) -铅	10 g
MUVA-RM 120	黄波奶酪-微量元素	20 g
MUVA-RM 121	硬奶酪 (冻干) -硝酸盐和铅	20 g
MUVA-SK-0303	加工奶酪 45 % f.i.d.m.-营养成分	75 g
MUVA-SK-0304	加工奶酪 55 % f.i.d.m.-营养成分	200 g
MUVA-SK-0305	加工奶酪 38 % f.i.d.m.-营养成分	200 g
MUVA-M-0107	超高温灭菌奶-营养成分	250 mL
MUVA-M-0108	超高温灭菌脱脂牛奶-营养成分	250 mL
MUVA-RM 407	黑巧克力-营养成分	150 g
MUVA-S-0810	果仁牛轧糖-奶油-营养成分	160 g
MUVA-HO-1702	索姆蜂蜜-营养成分	60 g
MUVA-HO-1701	甘露蜜-营养成分	60 g
MUVA-RM 700	煮香肠-营养成分	48 g
MUVA-RM 701	煮香肠-营养成分	48 g
MUVA-BU-1303	甜奶油酱-营养成分	250 g
MUVA-BU-1304	弱酸黄油-营养成分	250 g
MUVA-RO-0714	冲击冷冻原料奶-营养成分	40 mL
MUVA-RM 750	婴儿食品-营养成分	50 g
MUVA-RM 751	婴儿食品-营养成分	50 g
MUVA-RM 752	膳食补充剂-营养成分	60 g
MUVA-RM 753	膳食补充剂-营养成分	50 g
MUVA-NEM-1601	膳食补充剂-营养成分	50 g
MUVA-YO-1403	酸奶 1.8 %-营养成分	500 g
MUVA-YO-1404	酸奶 3.8%-营养成分	500 g

Food Matrix Reference materials

*详细参数参见表后数据

Code	Product	Unit
MUVA-RM 58	Milk powder mixed - Proximates 混合奶粉-营养元素	70 g
	Reference values	
	Fat (Röse-Gottlieb)..... 13.84 ± 0.15 g/100 g	Protein (Kjeldahl) 32.28 ± 0.11 g/100 g
	Free Fat 4.62 ± 0.36 g/100 g	Lactose (Monohydrate) 43.68 ± 0.40 g/100 g
	Dry matter (102 °C) 97.38 ± 0.07 g/100 g	Ash 6.83 ± 0.04 g/100 g
MUVA-RM 59	Milk powder, spray dried - Proximates 喷雾干燥奶粉-营养元素	70 g
	Reference values	
	Fat (Röse-Gottlieb)..... 26.46 ± 0.15 g/100 g	Protein (Kjeldahl) 26.68 ± 0.08 g/100 g
	Free fat 14.49 ± 0.60 g/100 g	Lactose (Monohydrate) 38.48 ± 0.54 g/100 g
	Dry matter (102 °C) 97.99 ± 0.08 g/100 g	Ash 5.71 ± 0.04 g/100 g
MUVA-MP-0201	Skimmed milk powder spray dried – Proximates 喷雾干燥脱脂奶粉-营养元素	70 g
	Reference values	
	Fat (Röse-Gottlieb)..... 0.71 ± 0.12 g/100 g	Lactose (Monohydrate) 50.72 ± 0.54 g/100 g
	Dry matter 95.97 ± 0.08 g/100 g	Ash 7.85 ± 0.07 g/100 g
	Protein (Kjeldahl) 36.61 ± 0.11 g/100 g	Nitrate 35.1 ± 5.6 mg/kg
MUVA-MP-0202	Skimmed milk powder spray dried - Proximates 喷雾干燥脱脂奶粉-营养元素	70 g
	Reference values	
	Fat (Röse-Gottlieb)..... 26.72 ± 0.54 g/100 g	Lactose (Monohydrate) 38.11 ± 0.46 g/100 g
	Dry matter 97.80 ± 0.06 g/100 g	Ash 5.66 ± 0.06 g/100 g
	Protein (Kjeldahl) 27.14 ± 0.18 g/100 g	Nitrate 5.2 ± 2.8 mg/kg
MUVA-RM 71	Whey powder – Proximates 乳清粉-营养元素	20 g
	Reference values	
	Fat (Röse-Gottlieb)..... 1.63 ± 0.05 g/100 g	Nitrate 211 ± 11 mg/kg
	Dry matter (102 °C) 96.68 ± 0.08 g/100 g	Calcium 8129 ± 435 mg/kg
	Dry matter (87 °C) 97.31 ± 0.05 g/100 g	Magnesium 2233 ± 97 mg/kg
	Protein (Kjeldahl) 25.59 ± 0.16 g/100 g	Ash 15.04 ± 0.08 g/100 g
	Lactose (Monohydrate) 48.06 ± 0.43 g/100 g	
MUVA-RM 72	Whey powder – Proximates 乳清粉-营养元素	20 g
	Reference values	
	Fat (Röse-Gottlieb)..... 0.99 ± 0.05 g/100 g	Lactose (Monohydrate) 73.83 ± 0.61 g/100 g
	Dry matter (102 °C) 97.95 ± 0.08 g/100 g	Nitrate 158 ± 11 mg/kg
	Dry matter (87 °C) 98.35 ± 0.08 g/100 g	Ash 7.61 ± 0.07 g/100 g
MUVA-RM 73	Whey powder – Proximates 乳清粉-营养元素	70 g
	Reference values	
	Fat (Röse-Gottlieb) 0.80 ± 0.06 g/100 g	Lactose (Monohydrate) 78.26 ± 0.49 g/100 g
	Dry matter (102 °C) 98.04 ± 0.05 g/100 g	Ash 3.38 ± 0.05 g/100 g
	Dry matter (87 °C) 98.41 ± 0.07 g/100 g	Lactic acid 500 ± 35 g/100 g
	Protein (Kjeldahl) 13.60 ± 0.08 g/100 g	Nitrate 11.68 ± 2.21 mg/100 kg
MUVA-RM 74	Whey powder – Proximates 乳清粉-营养元素	70 g
	Reference values	
	Fat (Röse-Gottlieb) 1.97 ± 0.12 g/100 g	Lactose (Monohydrate) 48.88 ± 0.89 g/100 g
	Dry matter (102 °C) 96.16 ± 0.12 g/100 g	Ash 8.41 ± 0.10 g/100 g
	Dry matter (87 °C) 96.89 ± 0.09 g/100 g	Lactic acid 1101 ± 60 g/100 g
	Protein (Kjeldahl) 30.34 ± 0.63 g/100 g	Nitrate 34.66 ± 5.25 mg/kg
MUVA-RM 803	Whey powder 乳清粉-微量元素	20 g
	Reference values	
	Sodium 6.26 ± 0.22 mg/g	Magnesium 1.15 ± 0.03 mg/g
	Potassium 23.61 ± 0.66 mg/g	Lead 11 ± 12 µg/kg
	Calcium 4.67 ± 0.13 mg/g	
MUVA-RM 84	Acid casein – Proximates 酸酪-营养元素	60 g
	Reference values	
	Fat (SBR) 1.09 ± 0.16 g/100 g	Lactose (Monohydrate) 0.10 ± 0.03 g/100 g
	Water 9.28 ± 0.22 g/100 g	Ash 1.74 ± 0.08 g/100 g
	Protein (Kjeldahl) 88.66 ± 0.27 g/100 g	Nitrate 4.94 ± 1.56 mg/kg
MUVA-RM 85	Sodium casein – Proximates 酪蛋白酸钠-营养元素	60 g
	Reference values	
	Fat (SBR) 1.15 ± 0.09 g/100 g	Lactose (Monohydrate) 0.10 ± 0.02 g/100 g
	Water 6.82 ± 0.05 g/100 g	Ash 3.57 ± 0.11 g/100 g
	Protein (Kjeldahl) 89.03 ± 0.16 g/100 g	Nitrate 17.9 ± 2.20 mg/kg

Food Matrix Reference materials

Code	Product	Unit
MUVA-KM-0501	Evaporated milk (7.4% fat) – Proximates 淡炼乳（7.4%脂肪）-营养元素 Reference values Fat (Röse-Gottlieb) ... 7.38 ± 0.07 g/100 g Dry matter (102 °C) ... 22.28 ± 0.26 g/100 g Protein (Kjeldahl) ... 5.5 ± 0.04 g/100 g Phosphorous ... 166 ± 8 mg/100 g Ash ... 1.23 ± 0.02 g/100 g	170 g
MUVA-KM-0502	Evaporated milk (4% fat) – Proximates 淡炼乳（4%脂肪）-营养元素 Reference values Fat (Röse-Gottlieb) ... 4.11 ± 0.04 g/100 g Dry matter (102 °C) ... 24.34 ± 0.09 g/100 g Protein (Kjeldahl) ... 7.36 ± 0.04 g/100 g Phosphorous ... 228 ± 6 mg/100 g Ash ... 1.72 ± 0.02 g/100 g	170 g
MUVA-KM-0503	Coffee cream (10% fat) – Proximates 咖啡奶油（10%脂肪）-营养元素 Reference values Fat (Röse-Gottlieb) ... 10.25 ± 0.08 g/100 g Dry matter (102 °C) ... 18.49 ± 0.08 g/100 g Protein (Kjeldahl) ... 3.14 ± 0.02 g/100 g Ash ... 0.65 ± 0.01 g/100 g Phosphorus ... 89 ± 61 mg/100 g	100 mL
MUVA-RM 122	Evaporated milk (freeze-dried) 淡炼乳（冻干）-铅 Reference values Lead ... 36 ± 7 µg/kg	10 g
MUVA-RM 123	Evaporated milk (freeze-dried) 淡炼乳（冻干）-铅 Reference values Lead ... 17 ± 5 µg/kg	10 g
MUVA-RM 120	Gouda (freeze-dried) 黄波奶酪-微量元素 Reference values Sodium ... 17.09 ± 0.79 mg/g Potassium ... 1.14 ± 0.10 mg/g Calcium ... 11.93 ± 0.47 mg/g Magnesium ... 0.475 ± 0.030 mg/g	20 g
MUVA-RM 121	Hard cheese (freeze-dried) 硬奶酪（冻干）-硝酸盐和铅 Reference values Nitrate ... 2.1 ± 0.7 mg/kg Lead ... 19 ± 7 µg/kg	20 g
MUVA-SK-0303	Processed cheese 45 % f.i.d.m. – Proximates 加工奶酪 45 % f.i.d.m.-营养成分 Certified values Fat (SBR) ... 22.91 ± 0.13 g/100 g Dry matter (102 °C) ... 50.76 ± 0.24 g/100 g Protein (Kjeldahl) ... 20.31 ± 0.12 g/100 g Sodium chloride ... 1.89 ± 0.07 g/100 g pH value ... 5.65 ± 0.02 Phosphorus ... 0.97 ± 0.02 g/100 g	75 g
MUVA-SK-0304	Processed cheese 55 % f.i.d.m. – Proximates 加工奶酪55 % f.i.d.m.-营养成分 Reference values Fat (SBR) ... 22.69 ± 0.39 g/100 g Dry matter (102 °C) ... 43.71 ± 0.72 g/100 g Protein (Kjeldahl) ... 15.08 ± 0.17 g/100 g Sodium chloride ... 1.46 ± 0.04 g/100 g pH value ... 5.84 ± 0.02 Citric acid ... 142.9 ± 13.2 mg/100g Sodium ... 11286 ± 607 mg/kg Potassium ... 492 ± 74 mg/kg Ash ... 492 ± 74 mg/kg Nitrate ... 4.7 ± 0.8 mg/kg	200 g
MUVA-SK-0305	Processed cheese 38 % f.i.d.m. – Proximates 加工奶酪38 % f.i.d.m.-营养成分 Reference values Fat (SBR) ... 17.22 ± 0.39 g/100 g Dry matter (102 °C) ... 46.44 ± 0.41 g/100 g Protein (Kjeldahl) ... 22.58 ± 0.15 g/100 g Sodium chloride ... 1.12 ± 0.05 g/100 g pH value ... 5.57 ± 0.03 Citric acid ... 108.5 ± 4.5 mg/100g Sodium ... 10248 ± 932 mg/kg Potassium ... 669 ± 107 mg/kg Ash ... 4.81 ± 0.03 g/100 g Nitrate ... 4.1 ± 1.4 mg/kg	200 g
MUVA-M-0107	UHT Milk 3.5% Fat (in bottle sterilized) 超高温灭菌奶 Reference values Fat (Röse-Gottlieb) ... 3.540 ± 0.014 g/100 g Protein (Kjeldahl) ... 3.344 ± 0.019 g/100 g Lactose (Monohydrate) ... 4.706 ± 0.073 g/100 g Freezing point ... - 0.5167 ± 0.0012 °C Dry matter (102 °C) ... 12.36 ± 0.14 g/100 g	250 mL
MUVA-M-0108	Skimmed UHT Milk (in bottle sterilized) 超高温灭菌脱脂牛奶 Reference values Fat (Röse-Gottlieb) ... 0.071 ± 0.005 g/100 g Protein (Kjeldahl) ... 3.431 ± 0.019 g/100 g Lactose (Monohydrate) ... 4.814 ± 0.057 g/100 g Freezing point ... - 0.5127 ± 0.0015 °C Dry matter (102 °C) ... 9.11 ± 0.12 g/100 g	250 mL
MUVA-RM 407	Dark chocolate – Proximates 黑巧克力 Reference values Fat (Weibull-Stoldt) ... 42.02 ± 0.22 g/100 g Milk fat ... 1.49 ± 0.34 g/100 g Protein (Kjeldahl) ... 9.74 ± 0.13 g/100 g Saccharose ... 24.41 ± 0.42 g/100 g Theobromin (HPLC) ... 7547 ± 145 mg/kg	150 g

Food Matrix Reference materials

Code	Product	Unit
MUVA-S-0810	Nut-Nougat-cream – Proximates 果仁牛轧糖-奶油 Reference values Fat (Weibull-Stoldt) 31.27 ± 0.61 g/100 g Protein (Kjeldahl) 7.27 ± 0.12 g/100 g Lactose (monohydrate) 4.29 ± 0.11 g/100 g Saccharose 49.05 ± 0.69 g/100 g Theobromine 1795 ± 52 mg/kg	160 g
MUVA-HO-1702	Blossom honey – Proximates 索姆蜂蜜 Reference values Glucose 34.05 ± 0.36 g/100 g Fructose 36.81 ± 0.40 g/100 g Hydroxymethylfurfural 28.57 ± 3.37 mg/kg Ash 0.11 ± 0.02 g/100g pH value 3.84 ± 0.07 Conductivity 0.24 ± 0.02 mS/cm	60 g
MUVA-HO-1701	Honeydew honey – Proximates 甘露蜜 Reference values Glucose 24.51 ± 0.36 g/100 g Fructose 32.58 ± 0.45 g/100 g Hydroxymethylfurfural 18.21 ± 2.44 mg/kg Ash 0.83 ± 0.09 g/100g pH value 4.67 ± 0.04 Conductivity 0.24 ± 0.02 mS/cm	60 g
MUVA-RM 700	Boiled sausage – Proximates 煮香肠 Reference values Fat 22.32 ± 0.48 g/100 g Water (103 °C) 60.66 ± 0.28 g/100 g Protein (Kjeldahl) 13.02 ± 0.09 g/100 g Hydroxyproline 0.22 ± 0.03 g/100 g Sodium chloride 1.85 ± 0.19 g/100 g Nitrate 68.20 ± 4.84 mg/kg Calcium 140 ± 42 mg/kg Phosphorus 185 ± 16 mg/100 g Ash 2.77 ± 0.04 g/100 g	48 g
MUVA-RM 701	Boiled sausage – Proximates 煮香肠 Reference values Fat 22.88 ± 2.01 g/100 g Water (103 °C) 60.79 ± 0.87 g/100 g Protein (Kjeldahl) 12.35 ± 0.21 g/100 g Collagen 0.21 ± 0.02 g/100 g Sodium chloride 2.38 ± 0.06 g/100 g Nitrate 24.88 ± 7.30 mg/kg Calcium 199 ± 68 mg/kg Ash 3.42 ± 0.04 g/100 g	48 g
MUVA-BU-1303	Sweet cream butter – Proximates 甜奶油酱 Certified values Solids non-fat (102°C)..... 1.73 ± 0.13 g/100 g Water 15.79 ± 0.11 g/100 g pH-Value 6.71 ± 0.03 Cholesterol 2425 ± 346 mg/ kg	250 g
MUVA-BU-1304	Mild acid butter – Proximates 弱酸黄油 Certified values Solids non-fat (102°C)..... 1.83 ± 0.25 g/100 g Water (102°C) 15.84 ± 0.34 g/100 g pH-Value 5.01 ± 0.04 Cholesterol 2432 ± 314 mg/ kg	250 g
MUVA-RO-0714	Shock frozen raw milk – Proximates 冲击冷冻原料奶 Certified values Fat (Röse-Gottlieb) 2.331 ± 0.010 g/100 g Protein (Kjeldahl) 3.550 ± 0.020 g/100 g Lactose (Monohydrate) 4.866 ± 0.023 g/100 g Freezing point - 0.5241 ± 0.0011 °C pH value 6.66 ± 0.02 Caseine 2.782 ± 0.020 g/100 g NPN 0.191 ± 0.011 g/100 g	40 mL
MUVA-RM 750	Infant food 婴儿食品 Reference values Saccharose 1.08 ± 0.32 g/100 g Fructose 4.85 ± 0.40 g/100 g Glucose 12.51 ± 0.20 g/100 g Starch 16.54 ± 1.10 mg/100 g Vitamin C (HPLC) 103.3 ± 10.9 mg/100 g Vitamin E 5.68 ± 0.68 mg/100 g	50 g
MUVA-RM 751	Infant food 婴儿食品 Certified values Saccharose 2.98 ± 0.48 g/100 g Fructose 7.74 ± 1.18 g/100 g Glucose 6.29 ± 1.44 g/100 g Starch 10.20 ± 0.90 g/100 g Vitamin C (HPLC) 153.1 ± 55.6 mg/100 g Vitamin E 2.63 ± 0.49 mg/100 g	50 g
MUVA-RM 752	Dietary supplement 膳食补充剂 Reference values Sodium 2054 ± 108 mg/kg Potassium 9653 ± 517 mg/kg Calcium 7024 ± 320 mg/kg Magnesium 2614 ± 232 mg/kg Lead 22.50 ± 3.83 mg/kg Zinc 69.71 ± 5.11 mg/kg Phosphorus 819 ± 22 mg/100 g Chloride 455 ± 16 mg/100 g	60 g
MUVA-RM 753	Dietary supplement 膳食补充剂 Reference values Sodium 2957 ± 144 mg/kg Potassium 11422 ± 666 mg/kg Calcium 9427 ± 289 mg/kg Magnesium 842 ± 26 mg/kg Fe 18.11 ± 4.79 mg/kg Zinc 51.07 ± 2.00 mg/kg Phosphorus 73986 ± 198 mg/kg Chloride 7004 ± 226 mg/kg Cu 0.35 ± 0.08 mg/kg Mn 0.22 ± 0.03 mg/kg	50 g

Food Matrix Reference materials

Code	Product	Unit
MUVA-NEM-1601	Dietary supplement 膳食补充剂	50 g
	Reference values	
	Sodium 6390 ± 144 mg/kg	
	Potassium 13792 ± 2451 mg/kg	
	Calcium 7799 ± 610 mg/kg	
	Magnesium 1783 ± 135 mg/kg	
	Fe 224 ± 15 mg/kg	
	Zinc 19465 ± 13.44 mg/kg	
	Phosphorus 6199 ± 211 mg/kg	
	Chloride 10979 ± 1896 mg/kg	
	Cu 1.70 ± 0.19 mg/kg	
	Mn 1.42 ± 0.17 mg/kg	
MUVA-YO-1403	Yoghurt 1.8 % - Proximates 酸奶 1.8 %	500 g
	Certified values	
	Fat (SBR) 1.82 ± 0.15 g/100 g	
	Dry matter (102°C) 13.71 ± 0.17 g/100 g	
	Protein (Kjeldahl) 4.61 ± 0.05 g/100 g	
MUVA-YO-1404	Yoghurt 3.8 % - Proximates 酸奶 3.8%	500 g
	Certified values	
	Fat (SBR) 3.69 ± 0.08 g/100 g	
	Dry matter (102°C) 15.16 ± 0.21 g/100 g	
	Protein (Kjeldahl) 4.44 ± 0.02 g/100 g	

Food Matrix Reference materials

肉类及肉制品

编号	描述	规格
ERM-BB501	加工肉-氯化物, 硝酸盐, 羟脯氨酸	180G
ERM-BB384	猪肉-基本成分	2 vials
LGC7200	生牛肉-肉的种类 (免疫法和 DNA 分析)	30 g
LGC7201	熟牛肉-肉的种类 (免疫法和 DNA 分析)	30 g
LGC7202	生羊肉-肉的种类 (免疫法和 DNA 分析)	30 g
LGC7203	熟羊肉-肉的种类 (免疫法和 DNA 分析)	30 g
LGC7204	生猪肉-肉的种类 (免疫法和 DNA 分析)	30 g
LGC7205	熟猪肉-肉的种类 (免疫法和 DNA 分析)	30 g
LGC7206	生鸡肉-肉的种类 (免疫法和 DNA 分析)	30 g
LGC7207	熟鸡肉-肉的种类 (免疫法和 DNA 分析)	30 g
LGC7208	生火鸡肉-肉的种类 (免疫法和 DNA 分析)	30 g
LGC7209	熟火鸡肉-肉的种类 (免疫法和 DNA 分析)	30 g
BCR-673	牛眼中克伦特罗 (空白)	vial
BCR-674	牛眼中克伦特罗 (阳性)	vial
BCR-474/475	牛肝-群勃龙	set
BCR-185R	牛肝-微量元素	15 g
BCR-487	猪肝-维生素	15 g
ERM-BB124	猪肉-硝基咪唑	10 g
BCR-695	猪肝-金霉素	vial
BCR-697	猪肉-金霉素	vial
BCR-706	猪肾-金霉素	vial
BCR-411	牛肉-乙烯雌酚	5 g
BCR-412	牛肉-乙烯雌酚	5 g
BCR-648-9	牛肝-盐酸克伦特罗	set
SMRD 2000	鲜肉-微量元素	190 g
SMRD 2000-6	鲜肉-微量元素	6 x 190 g
BCR-163	牛肉/猪肉脂肪混合物-脂肪酸	2 amps.
ERM-BB444	猪肉脂肪-多氯联苯 (blank)	5 g
ERM-BB445	猪肉脂肪-多氯联苯 (low level)	5 g
ERM-BB446	猪肉脂肪-多氯联苯 (high level)	5 g
BCR-444	猪肉-氯霉素 (blank)	7 g
BCR-445	猪肉-氯霉素 (阳性)	7 g
ERM-BB130	猪肉-氯霉素	bottle

*详细参数参见表后数据

Code	Product	Unit
ERM-BB501	Processed meat - Proximates, chloride, nitrate, hydroxyproline 加工肉-氯化物, 硝酸盐, 羟脯氨酸 European Reference Material ERM-BB501 is a pork-based processed meat containing dry pork protein and pea starch. This material is sealed in retort pouches in 180g portions. Certified values Moisture 616 g/kg Nitrogen..... 23.0 g/kg Total fat 151 g/kg Ash 33.2 g/kg Chloride 14.5 g/kg Hydroxyproline 3.3 g/kg Nitrate (NO ₃) 0.209 g/kg	180 g
ERM-BB384	Pork muscle - Proximates and essential elements 猪肉-基本成分 One set consists of two amber glass vials each containing about 18 g of lyophilised pork muscle filled under protective atmosphere (argon). Certified value Uncertainty Kjeldahl nitrogen 14.2 g/100 g0.4 g/100 g Total fat 8.99 g/100 g0.20 g/100 g Ash 4.51 g/100 g0.19 g/100 g Na..... 1.86 mg/g0.15 mg/g Mg 1.03 mg/g0.04 mg/g Ca..... 0.164 mg/g 0.021 mg/g P 8.7 mg/g0.5 mg/g	2 vials

Food Matrix Reference materials

Code	Product	Unit
LGC7200	Beef, raw - Meat species 生牛肉-肉的种类（免疫法和DNA分析） Rump steak from Scottish Aberdeen Angus cattle, aged 20 months, purchased from an organic farm. The cattle had been fed grass rich in clover. This material is intended for use as a reference standard for species identification analytical methods. The species content of the material was checked using both an immunoassay test and DNA analysis. Assessed value Beef - raw ... 100 % Beef Indicative value for moisture	30 g
LGC7201	Beef, cooked - Meat species 熟牛肉-肉的种类（免疫法和DNA分析） Rump steak from Scottish Aberdeen Angus cattle, aged 20 months, purchased from an organic farm. The cattle had been fed grass rich in clover. This material is intended for use as a reference standard for species identification analytical methods. The species content of the material was checked using both an immunoassay test and DNA analysis. Assessed value Beef - cooked ... 100 % Beef Indicative value for moisture	30 g
LGC7202	Lamb, raw - Meat species 生羊肉-肉的种类（免疫法和DNA分析） Suffolk-cross leg of lamb, aged 9 months, was purchased from an organic meat supplier. This material is intended for use as a reference standard for species identification analytical methods. The species content of the material was checked using both an immunoassay test and DNA analysis. Assessed value Lamb - raw ... 100 % Lamb Indicative value for moisture	30 g
LGC7203	Lamb, cooked - Meat species 熟羊肉-肉的种类（免疫法和DNA分析） Suffolk-cross leg of lamb, aged 9 months, was purchased from an organic meat supplier. This material is intended for use as a reference standard for species identification analytical methods. The species content of the material was checked using both an immunoassay test and DNA analysis. Assessed value Lamb - cooked ... 100 % Lamb Indicative value for moisture	30 g
LGC7204	Pork, raw - Meat species 生猪肉-肉的种类（免疫法和DNA分析） 'Free range' Land Race/Large White Cross pork leg steak, aged approximately 5 months at slaughter, was purchased from an organic meat supplier. This material is intended for use as a reference standard for species identification analytical methods. The species content of the material was checked using both an immunoassay test and DNA analysis. Assessed value Pork - raw ... 100 % Pork Indicative value for moisture	30 g
LGC7205	Pork, cooked - Meat species 熟猪肉-肉的种类（免疫法和DNA分析） 'Free range' Land Race/Large White Cross pork leg steak, aged approximately 5 months at slaughter, was purchased from an organic meat supplier. This material is intended for use as a reference standard for species identification analytical methods. The species content of the material was checked using both an immunoassay test and DNA analysis. Assessed value Pork - cooked ... 100 % Pork Indicative value for moisture	30 g
LGC7206	Chicken, raw - Meat species 生鸡肉-肉的种类（免疫法和DNA分析） 'Free range' Ross whole chickens, aged 42 to 45 days at slaughter, were purchased from an organic meat supplier. This material is intended for use as a reference standard for species identification analytical methods. The species content of the material was checked using both an immunoassay test and DNA analysis. Assessed value Chicken - raw ... 100 % Chicken Indicative value for moisture	30 g

Food Matrix Reference materials

Code	Product	Unit																					
LGC7207	Chicken, cooked - Meat species 熟鸡肉-肉的种类（免疫法和DNA分析） 'Free range' Ross whole chickens, aged 42 to 45 days at slaughter, were purchased from an organic meat supplier. This material is intended for use as a reference standard for species identification analytical methods. The species content of the material was checked using both an immunoassay test and DNA analysis. Assessed value Chicken - cooked ... 100 % Chicken Indicative value for moisture	30 g																					
LGC7208	Turkey, raw - Meat species 生火鸡肉-肉的种类（免疫法和DNA分析） Organic turkeys were purchased from a local butcher's shop. This material is intended for use as a reference standard for species identification analytical methods. The species content of the material was checked using both an immunoassay test and DNA analysis. Assessed value Turkey - raw 100 % Turkey Indicative value for moisture	30 g																					
LGC7209	Turkey, cooked - Meat species 熟火鸡肉-肉的种类（免疫法和DNA分析） Organic turkeys were purchased from a local butcher's shop. This material is intended for use as a reference standard for species identification analytical methods. The species content of the material was checked using both an immunoassay test and DNA analysis. Assessed value Turkey - cooked 100 % Turkey Indicative value for moisture	30 g																					
BCR-673	Clenbuterol in reconstituted bovine eye (blank) 牛眼中克伦特罗（空白） The material consists of the equivalent of 2.00 ± 0.01 g (0.5 %) wet bovine eye material in sealed glass vials. It is a greyish powder obtained after lyophilisation and has to be reconstituted before use. Compound certified value Clenbuterol free base 0.50 µg/kg	vial																					
BCR-474/475	Bovine liver – Trenbolone 牛肝-群勃龙 Set of 2 x 2.8 g lyophilised liver powder Certified values BCR-474 17alpha-Trenbolone .. <0.5 µg/kg BCR-475 17alpha-Trenbolone 7.6 µg/kg	set																					
BCR-674	Clenbuterol in reconstituted bovine eye (positive) 牛眼中克伦特罗（阳性） The material consists of the equivalent of 2.00 ± 0.01 g (0.5 %) wet bovine eye material in sealed glass vials. It is a greyish powder obtained after lyophilisation and has to be reconstituted before use. Compound certified value Clenbuterol free base 9 µg/kg	vial																					
BCR-185R	Bovine liver - Trace elements 牛肝-微量元素 Certified values <table><tr><td>As 33.0 µg/kg</td><td>Mn1 1.07 mg/kg</td><td>Zn 138.6 mg/kg</td></tr><tr><td>Cd 544 µg/kg</td><td>Pb172 µg/kg</td><td></td></tr><tr><td>Cu 277 mg/kg</td><td>Se 1680 µg/kg</td><td></td></tr></table>	As 33.0 µg/kg	Mn1 1.07 mg/kg	Zn 138.6 mg/kg	Cd 544 µg/kg	Pb172 µg/kg		Cu 277 mg/kg	Se 1680 µg/kg		15 g												
As 33.0 µg/kg	Mn1 1.07 mg/kg	Zn 138.6 mg/kg																					
Cd 544 µg/kg	Pb172 µg/kg																						
Cu 277 mg/kg	Se 1680 µg/kg																						
BCR-487	Pig liver – Vitamins 猪肝-维生素 Certified values <table><tr><td>B₁ (thiamin) 8.6 mg/kg</td><td>B₁₂ 1.12 mg/kg</td></tr><tr><td>B₂ (riboflavin) 106.8 mg/kg</td><td>Folate (total) ... 13.3 mg/kg</td></tr><tr><td>B₆ (total pyridoxine) 19.3 mg/kg</td><td></td></tr></table>	B ₁ (thiamin) 8.6 mg/kg	B ₁₂ 1.12 mg/kg	B ₂ (riboflavin) 106.8 mg/kg	Folate (total) ... 13.3 mg/kg	B ₆ (total pyridoxine) 19.3 mg/kg		15 g															
B ₁ (thiamin) 8.6 mg/kg	B ₁₂ 1.12 mg/kg																						
B ₂ (riboflavin) 106.8 mg/kg	Folate (total) ... 13.3 mg/kg																						
B ₆ (total pyridoxine) 19.3 mg/kg																							
ERM-BB124	Pork muscle – Nitroimidazoles 猪肉-硝基咪唑 Nitroimidazoles in the reconstituted material <table><tr><th>Compound</th><th>Certified value µg/kg</th><th>Uncertainty µg/kg</th></tr><tr><td>Ronidazole (RNZ)</td><td>2.09</td><td>0.25</td></tr><tr><td>Metronidazole (MNZ).....</td><td>1.93</td><td>0.15</td></tr><tr><td>2-hydroxymethyl-1-methyl-5-nitroimidazole (HMMNI)</td><td>0.69</td><td>0.09</td></tr><tr><td>Hydroxymetronidazole (MNZOH)</td><td>6.2</td><td>0.9</td></tr><tr><td>Hydroxyipronidazole (IPZOH)</td><td>1.67</td><td>0.12</td></tr><tr><td>Dimetridazole (DMZ)</td><td>< 0.25</td><td></td></tr></table>	Compound	Certified value µg/kg	Uncertainty µg/kg	Ronidazole (RNZ)	2.09	0.25	Metronidazole (MNZ).....	1.93	0.15	2-hydroxymethyl-1-methyl-5-nitroimidazole (HMMNI)	0.69	0.09	Hydroxymetronidazole (MNZOH)	6.2	0.9	Hydroxyipronidazole (IPZOH)	1.67	0.12	Dimetridazole (DMZ)	< 0.25		10 g
Compound	Certified value µg/kg	Uncertainty µg/kg																					
Ronidazole (RNZ)	2.09	0.25																					
Metronidazole (MNZ).....	1.93	0.15																					
2-hydroxymethyl-1-methyl-5-nitroimidazole (HMMNI)	0.69	0.09																					
Hydroxymetronidazole (MNZOH)	6.2	0.9																					
Hydroxyipronidazole (IPZOH)	1.67	0.12																					
Dimetridazole (DMZ)	< 0.25																						

Food Matrix Reference materials

Code	Product	Unit
BCR-695	Pig liver – Chlortetracycline 猪肝-金霉素 Certified value Chlortetracycline ... < 0.004 mg/kg	vial
BCR-697	Pig muscle – Chlortetracycline 猪肉-金霉素 Certified value Chlortetracycline ... < 0.006 mg/kg	vial
BCR-706	Pig kidney – Chlortetracycline 猪肾-金霉素 Certified value Chlortetracycline ... < 0.005 mg/kg	vial
BCR-411	Bovine muscle – Diethylstilbestrol 牛肉-乙炔雌酚 Certified value Diethylstilbestrol >0.5 µg/L	5 g
BCR-412	Bovine muscle – Diethylstilbestrol 牛肉-乙炔雌酚 Certified value Diethylstilbestrol >0.1 µg/L	5 g
BCR-648-9	Bovine liver – Clenbuterol 牛肝-盐酸克伦特罗 Set of 2 x 10 g lyophilised bovine liver Certified values BCR-648 Clenbuterol <0.5 µg/kg BCR-649 Clenbuterol 1.2 µg/kg	set
SMRD 2000	Fresh meat - Proximates and trace elements 鲜肉-微量元素 Certified values Ash 2.65 g/100 g Hydroxyproline 0.133 g/100 g K ... 1860 mg/kg Moisture 68.8 g/100 g Starch 3.85 g/100 g Ca... 70 mg/kg Fat 14.3 g/100 g Salt (NaCl) ¹ ... 2.19 g/100 g Fe 6.3 mg/kg Nitrogen..... 1.63 g/100 g Na 8500 mg/kg P ... 1080 mg/kg ¹ Calculated value based on measurement of Na (n=2) and Cl (n=17) as reported by the participants.	190 g
SMRD 2000-6	Meat - Proximates and trace elements 肉-微量元素	6 x 190 g
BCR-163	Beef/pork fat blend - Fatty acids 牛肉/猪肉脂肪混合物-脂肪酸 The entire fatty acid (methyl ester) profile was determined but certified values are only given for the major components (>2%) and indicative values are given for all minor components. Methyl esters (mass fraction fatty acid methyl ester/total fatty acid methyl ester) Certified values 14:0 n-Tetradecanoic acids 2.29 g/100 g 18:1 n-Octadecenoic acids ... 38.34 g/100 g 16:0 n-Hexadecanoic acid... 25.96 g/100 g 18:2 n-Octadecadienoic acids ... 7.05 g/100 g 16:1 n-Hexadecanoic acids ... 2.58 g/100 g 18:3 n-Octadecatrienoic acids ... 0.86 g/100 g 18:0 n-Octadecenoic acids ... 18.29 g/100 g Sterols (mass fraction in fat) Certified value Cholesterol 133.6 mg/100 g Indicative values for additional methyl esters of fatty acids	2 amps.
ERM-BB444	Pork fat - PCBs (blank) 猪肉脂肪-多氯联苯 (blank) Certified values PCB 28 <2 µg/kg PCB 118 <2 µg/kg PCB 180 <2 µg/kg PCB 52 <2 µg/kg PCB 138 <2 µg/kg PCB sum ... <14 µg/kg PCB 101 <2 µg/kg PCB 153 <2 µg/kg Indicative value for 2,2',4,4'-Tetrabromodiphenyl ether (BDE 47)	5 g
ERM-BB445	Pork fat - PCBs (low level) 猪肉脂肪-多氯联苯 (low level) Compound Certified value Uncertainty µg/kg µg/kg PCB 28... 14.8 1.3 PCB 52... 12.9 0.9 PCB 101... 12.5 1.2 PCB 118... 12.7 1.3 PCB 138... 14.6 1.6 PCB 153... 13.1 1.1 PCB 180... 12.6 0.9 PCB sum ... 93 7 Indicative value for 2,2',4,4'-Tetrabromodiphenyl ether (BDE 47)	5 g

Food Matrix Reference materials

Code	Product	Unit																											
ERM-BB446	Pork fat - PCB (high level) 猪肉脂肪-多氯联苯 (high level)	5 g																											
	<table> <tr> <th>Compound</th><th>Certified value μg/kg</th><th>Uncertainty μg/kg</th></tr> <tr> <td>PCB 28.....</td><td>29.6</td><td>2.1</td></tr> <tr> <td>PCB 52.....</td><td>25.5</td><td>1.8</td></tr> <tr> <td>PCB 101.....</td><td>30</td><td>4</td></tr> <tr> <td>PCB 118.....</td><td>30.2</td><td>2.7</td></tr> <tr> <td>PCB 138.....</td><td>32</td><td>4</td></tr> <tr> <td>PCB 153.....</td><td>30.8</td><td>2.4</td></tr> <tr> <td>PCB 180.....</td><td>29.8</td><td>2.5</td></tr> <tr> <td>PCB sum</td><td>207</td><td>11</td></tr> </table> Indicative value for 2,2',4,4'-Tetrabromodiphenyl ether (BDE 47)	Compound	Certified value μg/kg	Uncertainty μg/kg	PCB 28.....	29.6	2.1	PCB 52.....	25.5	1.8	PCB 101.....	30	4	PCB 118.....	30.2	2.7	PCB 138.....	32	4	PCB 153.....	30.8	2.4	PCB 180.....	29.8	2.5	PCB sum	207	11	
Compound	Certified value μg/kg	Uncertainty μg/kg																											
PCB 28.....	29.6	2.1																											
PCB 52.....	25.5	1.8																											
PCB 101.....	30	4																											
PCB 118.....	30.2	2.7																											
PCB 138.....	32	4																											
PCB 153.....	30.8	2.4																											
PCB 180.....	29.8	2.5																											
PCB sum	207	11																											
BCR-444	Porcine muscle - Chloramphenicol (blank) 猪肉-氯霉素 (blank)	7 g																											
	Certified value																												
	Chloramphenicol <0.2 μg/kg																												
BCR-445	Porcine muscle - Chloramphenicol (positive) 猪肉-氯霉素 (阳性)	7 g																											
	Certified value																												
	Chloramphenicol 8.9 μg/kg																												
ERM-BB130	Pork muscle – Chloramphenicol 猪肉-氯霉素	bottle																											
	Certified value																												
	Chloramphenicol 0.230 ± 0.021μg/kg																												

Food Matrix Reference materials

贝类、鱼及鱼制品

编号	描述	规格
BCR-668	贻贝组织-微量元素	10 g
BCR-682	贻贝组织-多氯联苯	70 g
ERM-CE477	贻贝组织-丁基锡化合物	14 g
BCR-543	贻贝-DC-石房蛤毒素	15 g
BCR-663	醋酸溶液-石房蛤毒素	Amp
LGC1706	孔雀石绿草酸盐	250 mg
ERM-AC303	无色孔雀石绿	100 mg
BCR-463	鲑鱼-总汞和甲基汞	15 g
ERM-CE464	鲑鱼-总汞和甲基汞	15 g
BCR-349	鱼肝油-多氯联苯	2 g
ERM-BB350	三文鱼油-多氯联苯	2 g
BCR-598	鱼肝油-有机氯农药	5 g
BCR-719	鲜鲑鱼罐头-多氯联苯	70 g
BCR-718	鲜鲑鱼罐头-多氯联苯	70 g
BCR-627	金枪鱼组织-砷	10 g
BCR-725	鲑鱼组织-氟甲喹和恶喹酸	vial
CIL-EDF-2524	清洁鱼-有机污染物	10 g
CIL-EDF-2525	自然污染的鱼-有机污染物	10 g
CIL-EDF-2526	强化鱼-有机污染物	10 g
CIL-EDF-4023	三种（2524/2525/2526）鱼的标准样品	3 x 10 g
BDS-BRM-04	鱼油- DR CALUX® TEQ (Low)	100 g
BDS-BRM-05	鱼油- DR CALUX® TEQ (Middle)	100 g
BDS-BRM-06	鱼油- DR CALUX® TEQ (Middle)	100 g
BDS-BRM-04-06	鱼油- DR CALUX® TEQ （04/05/06 一组）	kit

*详细参数参见表后数据

Code	Product	Unit
Shellfish 贝类		
BCR-668	Mussel tissue - Trace elements 贻贝组织-微量元素 Certified values Ce ... 89 µg/kg La... ..80 µg/kg Tb 1.62 µg/kg Dy 8.9 µg/kg Lu... ..0.389 µg/kg Th 10.7 µg/kg Er 4.5 µg/kg Nd5.4 µg/kg Tm 0.480 µg/kg Eu 2.79 µg/kg Pr12.3 µg/kg U 56 µg/kg Gd 13.0 µg/kg Sm1.2 µg/kg Y 59 µg/kg Indicative values for : As, Cd, Co, Cr, Cs, Ho, Fe, Mo, Sc, Yb and Zn	10 g
BCR-682	Mussel tissue – PCBs 贻贝组织-多氯联苯 Certified values PCB 28... .. 0.30 µg/kg PCB 1384.6 µg/kg PCB 170... .. 0.17 µg/kg PCB 52... .. 0.78 µg/kg PCB 1495.7 µg/kg PCB 180... .. 0.77 µg/kg PCB 118... .. 2.6 µg/kg PCB 1539.2 µg/kg	70 g
ERM-CE477	Mussel tissue - Butyltin compounds 贻贝组织-丁基锡化合物 Compound Certified value Uncertainty mg/kg mg/kg Tributyltin (TBT) 2.20 0.19 Dibutyltin (DBT) 1.54 0.12 Monobutyltin (MBT) 1.50 0.28	14 g

Food Matrix Reference materials

Code	Product	Unit																					
BCR-543	Mussel - dc-Saxitoxin 贻贝-DC-石房蛤毒素 Mussel material BCR-543 is intended to serve as an analytical blank or as a material enriched with the saxitoxin enrichment solution (BCR-663). As an analytical blank it may serve - to establish recovery values for a method of analysis at various levels of contamination - to check the specific background level of the laboratories methods. BCR-543 enriched with saxitoxin enrichment solution (BCR-663) may be used to validate the laboratory's own methods. <table> <tr> <th>Compound</th><th>Certified value (mg/kg)</th><th>Uncertainty (mg/kg)</th></tr> <tr> <td>Saxitoxin-2HCl.....</td><td><0.07</td><td></td></tr> <tr> <td>Saxitoxin-2HCl.....</td><td>0.48</td><td>0.06</td></tr> <tr> <td>DC-Saxitoxin-2HCl</td><td><0.04</td><td></td></tr> </table> This reference materials is a "dual usage" materials and require special export/ import documents under the authority of IRMM.	Compound	Certified value (mg/kg)	Uncertainty (mg/kg)	Saxitoxin-2HCl.....	<0.07		Saxitoxin-2HCl.....	0.48	0.06	DC-Saxitoxin-2HCl	<0.04		15 g									
Compound	Certified value (mg/kg)	Uncertainty (mg/kg)																					
Saxitoxin-2HCl.....	<0.07																						
Saxitoxin-2HCl.....	0.48	0.06																					
DC-Saxitoxin-2HCl	<0.04																						
BCR-663	Saxitoxin in acetic acid 醋酸溶液-石房蛤毒素 This material is an acetic acid solution (0.2 mol/L), containing saxitoxin.2HCl. <table> <tr> <th>Compound</th><th>Certified value mg/kg</th><th>Uncertainty mg/kg</th></tr> <tr> <td>Saxitoxin.2HCl.....</td><td>9.8</td><td>1.2</td></tr> </table> This reference materials is a "dual usage" materials and require special export/ import documents under the authority of IRMM.	Compound	Certified value mg/kg	Uncertainty mg/kg	Saxitoxin.2HCl.....	9.8	1.2	Amp.															
Compound	Certified value mg/kg	Uncertainty mg/kg																					
Saxitoxin.2HCl.....	9.8	1.2																					
Fish																							
LGC1706	Malachite green oxalate 孔雀石绿草酸盐 The material is intended for the use as an analytical standard for the determination of malachite green oxalate in foodstuff especially fish Assessed value Purity 94.2 ± 1.4 mass% Indicative values for Monode -malachite green, 4-(Dimethylamino)benzophenone, Malachite green carbinol (MG-carbinol), Leucomalachite green (LMG).	250 mg																					
ERM-AC303	Leucomalachite Green (4,4'-Benzylidenbis(N,N-dimethylaniline)) 无色孔雀石绿 Certified value Purity 99.8 ± 0.8%	100 mg																					
BCR-463	Tuna fish - Total mercury and methyl-mercury 鲑鱼-总汞和甲基汞 Certified values Methylmercury 3.04 mg/kg Total mercury 2.85 mg/kg	15 g																					
ERM-CE464	Tuna fish - Total mercury and methyl-mercury 鲑鱼-总汞和甲基汞 Certified values Methylmercury 5.50 mg/kg Total mercury 5.24 mg/kg	15 g																					
BCR-349	Cod liver oil – PCBs 鱼肝油-多氯联苯 <table> <tr> <th>Compound</th><th>Certified value µg/kg</th><th>Uncertainty µg/kg</th></tr> <tr> <td>PCB 28</td><td>68</td><td>8</td></tr> <tr> <td>PCB 52</td><td>149</td><td>21</td></tr> <tr> <td>PCB 101</td><td>372</td><td>18</td></tr> <tr> <td>PCB 118</td><td>460</td><td>40</td></tr> <tr> <td>PCB 153</td><td>940</td><td>40</td></tr> <tr> <td>PCB 180</td><td>282</td><td>23</td></tr> </table>	Compound	Certified value µg/kg	Uncertainty µg/kg	PCB 28	68	8	PCB 52	149	21	PCB 101	372	18	PCB 118	460	40	PCB 153	940	40	PCB 180	282	23	2 g
Compound	Certified value µg/kg	Uncertainty µg/kg																					
PCB 28	68	8																					
PCB 52	149	21																					
PCB 101	372	18																					
PCB 118	460	40																					
PCB 153	940	40																					
PCB 180	282	23																					

Food Matrix Reference materials

Code

ERM-BB350

Product

Salmon oil – PCBs 三文鱼油-多氯联苯

Unit

2 g

Compound	Certified value ng/g	Uncertainty ng/kg
2,4,4'-Trichlorobiphenyl (PCB 28)	21.3	1.1
2,2',5,5'-Tetrachlorobiphenyl (PCB 52)	37.4	2.2
2,4,4',5-Tetrachlorobiphenyl (PCB 74)	23	1.9
2,2',4,4',5-Pentachlorobiphenyl (PCB 99)	62	6
2,2',4,5,5'-Pentachlorobiphenyl (PCB 101)	111	5
2,3,3',4,4'-Pentachlorobiphenyl (PCB 105)	25.8	2.1
2,3,3',4',6-Pentachlorobiphenyl (PCB 110)	54.1	2.8
2,3',4,4',5-Pentachlorobiphenyl (PCB 118)	84	4
2,2',3,4,4',5'-Hexachlorobiphenyl (PCB 138)	137	10
2,2',3,4',5',6-Hexachlorobiphenyl (PCB 149)	88	9
2,2',4,4',5,5'-Hexachlorobiphenyl (PCB 153)	220	11
2,3,3',4,4',5-Hexachlorobiphenyl (PCB 156)	20.1	1.3
2,2',3,3',4,5',6'-Heptachlorobiphenyl (PCB 177)	25.8	2
2,2',3,4,4',5,5'-Heptachlorobiphenyl (PCB 180)	67	4
2,2',3,4,4',5',6-Heptachlorobiphenyl (PCB 183)	22.5	1.8
2,2',3,4',5,5',6-Heptachlorobiphenyl (PCB 187)	67	5
2,2',3,3',4,4',5,5'-Octachlorobiphenyl (PCB 194)	23.4	1.5
2,2',3,3',4,4',5,6'-Octachlorobiphenyl (PCB 196)	41	7

BCR-598

Cod liver oil - Organochlorine pesticides 鱼肝油-有机氯农药

5 g

Compound	Certified value µg/kg	Uncertainty µg/kg
Hexachlorobenzene	55.7	2
alpha-HCH	42	3
beta-HCH	16	3
gamma-HCH	23	4
gamma-Chlordane	6.9	1.6
alpha-Chlordane	24.4	1.8
Oxychlordane	11	1.8
trans-Nonachlor	39	4
Dieldrin	59	4
4,4'-DDE	0.61 x 10 ³	0.04 x 10 ³
2,4'-DDD	30	4
4,4'-DDD	0.40 x 10 ³	0.03 x 10 ³
4,4'-DDT	0.179 x 10 ³	0.018 x 10 ³

BCR-719

Canned fresh chub – PCBs 鲜鲢鱼罐头-多氯联苯

70 g

The material consists of approx. 70 g of minced sterilised muscle of chub to which butylhydroxy toluene (BHT) was added as an antioxidant.

Certified values

PCB 77	196 ng/kg	PCB 126	2 0.0 ng/kg
PCB 81	13.6 ng/kg	PCB 169	1 .80 ng/kg

BCR-718

Canned fresh herring – PCBs 鲜鲱鱼罐头-多氯联苯

70 g

The material consists of approx. 70 g of minced sterilised muscle of herring to which butylhydroxy toluene (BHT) was added as an antioxidant.

Certified values

PCB 28	0.41 µg/kg	PCB 118	1 .78 µg/kg	PCB 153	4.62 µg/kg
PCB 52	1.00 µg/kg	PCB 128	0 .62 µg/kg	PCB 156	0.19 µg/kg
PCB 101	2.12 µg/kg	PCB 138	2 .97 µg/kg	PCB 170	0.35 µg/kg
PCB 105	0.63 µg/kg	PCB 149	2 .58 µg/kg	PCB 180	0.795 µg/kg

BCR-627

Tuna fish tissue - Arsenic species 金枪鱼组织-砷

10 g

Certified values

Arsenobetaine	52 □ mol/kg	total As	4.8 mg/kg
Dimethylarsinic acid	2 □ mol/kg		

see also arsenobetaine standard solution (BCR-626)

BCR-725

Salmon tissue - Flumequine and oxolinic acid 鲑鱼组织-氟甲喹和恶喹酸

vial

	Certified value µg/kg	Uncertainty µg/kg
Flumequine	1170	210
Oxolinic acid	600	100

Food Matrix Reference materials

Code	Product	Unit	
CIL-EDF-2524	Clean Fish - Organic contaminants 清洁鱼-有机污染物	10 g	
Reference values			
Polychlorinated dioxins and furans			
2,3,7,8-TCDD	0.07 ± 0.06 ng/kg	1,2,3,7,8-PeCDF	0.09 ± 0.06 ng/kg
1,2,3,7,8-PeCDD	0.15 ± 0.03 ng/kg	2,3,4,7,8-PeCDF	0.21 ± 0.14 ng/kg
1,2,3,4,7,8-HxCDD	0.06 ± 0.03 ng/kg	Total-PeCDF	1.22 ± 1.13 ng/kg
1,2,3,6,7,8-HxCDD	0.24 ± 0.14 ng/kg	1,2,3,4,7,8-HxCDF	0.09 ± 0.14 ng/kg
1,2,3,7,8,9-HxCDD	0.07 ± 0.05 ng/kg	1,2,3,6,7,8-HxCDF	0.08 ± 0.12 ng/kg
1,2,3,4,6,7,8-HpCDD	0.29 ± 0.54 ng/kg	2,3,4,6,7,8-HxCDF	0.08 ± 0.05 ng/kg
Total HpCDD	0.23 ± 0.30 ng/kg	Total-HxCDF4	0.55 ± 1.31 ng/kg
OCDD	0.59 ± 0.82 ng/kg	1,2,3,4,6,7,8-HpCDF	0.17 ± 0.28 ng/kg
2,3,7,8-TCDF	2.42 ± 0.74 ng/kg	OCDF	0.24 ± 0.58 ng/kg
Total TCDF	2.49 ± 0.92 ng/kg		
Polychlorinated biphenyls			
2,2',5'-TriCB (#18)	86.0 ± 60.4 ng/kg		
2,4,4'-TriCB (#28)	253 ± 244 ng/kg		
3,4,4'-TriCB (#37)	12.6 ± 4.52 ng/kg		
2,2',3,5'-TetraCB (#44)	274 ± 192 ng/kg		
2,2',4,5'-TetraCB (#49)	176 ± 41.6 ng/kg		
2,2',5,5'-TetraCB (#52)	653 ± 200 ng/kg		
2,3',4,4'-TetraCB (#66)	218 ± 212 ng/kg		
2,4,4',5'-TetraCB (#74)	348 ± 398 ng/kg		
3,3',4,4'-TetraCB (#77)	8.82 ± 4.16 ng/kg		
3,4,4',5'-TetraCB (#81)	1.27 ± 2.52 ng/kg		
2,2',4,4',5'-PentaCB (#99)	588 ± 120 ng/kg		
2,2',4,5,5'-PentaCB (#101)	1,130 ± 274 ng/kg		
2,3,3',4,4'-PentaCB (#105)	280 ± 80.4 ng/kg		
2,3,3',4',6'-PentaCB (#110)	789 ± 170 ng/kg		
2,3,4,4',5'-PentaCB (#114)	18.6 ± 5.98 ng/kg		
2,3',4,4',5'-PentaCB (#118)	692 ± 104 ng/kg		
2',3,4,4',5'-PentaCB (#123)	11.4 ± 9.24 ng/kg		
3,3',4,4',5'-PentaCB (#126)	2.14 ± 1.24 ng/kg		
2,2',3,3',4,4'-HexaCB (#128)	127 ± 62.2 ng/kg		
2,2',3,4,4',5'-HexaCB (#137)	31.8 ± 26.8 ng/kg		
2,2',3,4,4',5'-HexaCB (#138)	1,110 ± 400 ng/kg		
2,2',3,4,5,5'-HexaCB (#141)	152 ± 119 ng/kg		
2,2',3,4',5,5'-HexaCB (#146)	261 ± 69.2 ng/kg		
2,2',3,4',5',6'-HexaCB (#149)	608 ± 788 ng/kg		
2,2',3,5,5',6'-HexaCB (#151)	279 ± 212 ng/kg		
2,2',4,4',5,5'-HexaCB (#153)	1,360 ± 516 ng/kg		
2,3,3',4,4',5'-HexaCB (#156)	64.7 ± 18.4 ng/kg		
2,3,3',4,4',5'-HexaCB (#157)	19.2 ± 8.68 ng/kg		
2,3,3',4,4',6'-HexaCB (#158)	73.2 ± 52.6 ng/kg		
2,3',4,4',5,5'-HexaCB (#167)	24.7 ± 17.1 ng/kg		
3,3',4,4',5,5'-HexaCB (#169)	0.65 ± 0.46 ng/kg		
2,2',3,3',4,4',5'-HeptaCB (#170)	119 ± 42.0 ng/kg		
2,2',3,3',4,5,5'-HeptaCB (#172)	38.6 ± 12.0 ng/kg		
2,2',3,3',4,5,6'-HeptaCB (#177)	126 ± 47.8 ng/kg		
2,2',3,3',5,5',6'-HeptaCB (#178)	68.2 ± 5.80 ng/kg		
2,2',3,4,4',5,5'-HeptaCB (#180)	412 ± 182 ng/kg		
2,2',3,4,4',5,6'-HeptaCB (#183)	125 ± 59.4 ng/kg		
2,2',3,4',5,5',6'-HeptaCB (#187)	357 ± 222 ng/kg		
2,3,3',4,4',5,5'-HeptaCB (#189)	6.16 ± 2.72 ng/kg		
2,2',3,3',4,4',5,5'-OctaCB (#194)	48.1 ± 25.6 ng/kg		
2,2',3,3',4,4',5,6'-OctaCB (#196)	44.8 ± 56.6 ng/kg		
2,2',3,3',4,5,5',6'-OctaCB (#199)	81.7 ± 67.4 ng/kg		
2,2',3,3',4,4',5,5',6'-NonaCB (#206)	10.4 ± 2.06 ng/kg		
DecaCB (#209)	14.4 ± 1.08 ng/kg		
Polybrominated diphenyl ethers			
2,4,4'-TriBDE (#28)	26.6 ± 45.8 ng/kg	2,2',4,4',6'-PentaBDE (#100)	113 ± 93.6 ng/kg
2,2',4,4'-TetraBDE (#47)	712 ± 818 ng/kg	2,2',4,4',5,5'-HexaBDE (#153)	21.6 ± 14.7 ng/kg
2,3',4,4'-TetraBDE (#66)	23.4 ± 21.6 ng/kg	2,2',4,4',5,6'-HexaBDE (#154)	30.9 ± 39.8 ng/kg
2,2',4,4',5'-PentaBDE (#99)	184 ± 86.2 ng/kg		
Polyaromatic hydrocarbons			
Acenaphthene	967 ± 604 ng/kg	Fluoranthene	4.930 ± 1.310 ng/kg
Acenaphthylene	516 ± 290 ng/kg	Fluorene	4.400 ± 3.530 ng/kg
Anthracene	592 ± 284 ng/kg	Naphthalene	15.600 ± 15.800 ng/kg
Benzo[b]fluoranthene	794 ± 157 ng/kg	Phenanthrene	12.000 ± 14.000 ng/kg
Benzo[k]fluoranthene	222 ± 7.60 ng/kg	Pyrene	6.300 ± 1.630 ng/kg
Chrysene	720 ± 314 ng/kg		
Pesticides			
4,4'-DDE	10.100 ± 2.440 ng/kg	alpha-Hexachlorocyclohexane	267 ± 226 ng/kg
4,4'-DDD	1.640 ± 756 ng/kg	Lindane(gamma-HCH)	390 ± 136 ng/kg
4,4'-DDT	976 ± 1.390 ng/kg	Hexachlorobenzene	783 ± 360 ng/kg
Dieldrin	488 ± 74.6 ng/kg	cis-Nonachlor	211 ± 126 ng/kg
Endosulfan-I	534 ± 378 ng/kg	trans-Nonachlor	1.130 ± 542 ng/kg

Food Matrix Reference materials

Code

CIL-EDF-2525

Product

Naturally Contaminated Fish - Organic contaminants 自然污染の魚-有機汚染物

Unit

10 g

Reference values

Polychlorinated dioxins and furans

2,3,7,8-TCDD	17.0 ± 3.90 ng/kg	1,2,3,7,8-PeCDF	4.58 ± 1.42 ng/kg
Total TCDD	1.68 ± 1.54 ng/kg	2,3,4,7,8-PeCDF	14.5 ± 4.04 ng/kg
1,2,3,7,8-PeCDD	3.71 ± 0.90 ng/kg	Total PeCDF	23.4 ± 6.66 ng/kg
Total PeCDD	3.68 ± 0.84 ng/kg	1,2,3,4,7,8-HxCDF	5.95 ± 1.52 ng/kg
1,2,3,4,7,8-HxCDD	0.33 ± 0.18 ng/kg	1,2,3,6,7,8-HxCDF	1.73 ± 0.54 ng/kg
1,2,3,6,7,8-HxCDD	2.03 ± 0.60 ng/kg	1,2,3,7,8,9-HxCDF	0.10 ± 0.20 ng/kg
1,2,3,7,8,9-HxCDD	0.30 ± 0.14 ng/kg	2,3,4,6,7,8-HxCDF	1.04 ± 0.30 ng/kg
Total HxCDD	2.52 ± 1.10 ng/kg	Total HxCDF	10.7 ± 6.18 ng/kg
1,2,3,4,6,7,8-HpCDD	0.48 ± 0.36 ng/kg	1,2,3,4,6,7,8-HpCDF	0.59 ± 0.44 ng/kg
Total HpCDD	0.56 ± 0.62 ng/kg	1,2,3,4,7,8,9-HpCDF	0.16 ± 0.32 ng/kg
OCDD	1.71 ± 1.38 ng/kg	Total HpCDF	1.13 ± 1.48 ng/kg
2,3,7,8-TCDF	24.3 ± 4.74 ng/kg	OCDF	0.38 ± 0.50 ng/kg
Total TCDF	2.77 ± 9.40 ng/kg		

Polychlorinated biphenyls

2,2',5'-TriCB (#18)	1,390 ± 970 ng/kg
2,4,4'-TriCB (#28)	7,100 ± 1,260 ng/kg
2,4',5'-TriCB (#31)	4,000 ± 71.6 ng/kg
2,4',6'-TriCB (#32)	220 ± 216 ng/kg
3,4,4'-TriCB (#37)	165 ± 123 ng/kg
2,2',3,5'-TetraCB (#44)	14,200 ± 9,660 ng/kg
2,2',4,4'-TetraCB (#47)	16,000 ± 6,560 ng/kg
2,2',4,5'-TetraCB (#49)	13,600 ± 9,100 ng/kg
2,2',5,5'-TetraCB (#52)	27,100 ± 12,100 ng/kg
2,3',4,4'-TetraCB (#66)	56,500 ± 20,800 ng/kg
2,3',4',5'-TetraCB (#70)	44,400 ± 3,860 ng/kg
2,4,4',5'-TetraCB (#74)	23,100 ± 8,440 ng/kg
3,3',4,4'-TetraCB (#77)	1,850 ± 834 ng/kg
3,4,4',5'-TetraCB (#81)	161 ± 74.0 ng/kg
2,2',3,4,5'-PentaCB (#87)	38,400 ± 24,000 ng/kg
2,2',3',4,5'-PentaCB (#97)	29,800 ± 14,700 ng/kg
2,2',4,4',5'-PentaCB (#99)	94,300 ± 25,200 ng/kg
2,2',4,5,5'-PentaCB (#101)	82,700 ± 21,400 ng/kg
2,3,3',4,4'-PentaCB (#105)	50,100 ± 15,700 ng/kg
2,3,3',4',6'-PentaCB (#110)	84,900 ± 19,100 ng/kg
2,3,4,4',5'-PentaCB (#114)	3,410 ± 1,550 ng/kg
2,3',4,4',5'-PentaCB (#118)	122,000 ± 38,000 ng/kg
2',3,4,4',5'-PentaCB (#123)	3,280 ± 2,020 ng/kg
3,3',4,4',5'-PentaCB (#126)	628 ± 242 ng/kg
2,2',3,3',4,4'-HexaCB (#128)	28,200 ± 9,460 ng/kg
2,2',3,4,4',5'-HexaCB (#137)	7,250 ± 2,440 ng/kg
2,2',3,4,4',5'-HexaCB (#138)	178,000 ± 27,800 ng/kg
2,2',3,4,5,5'-HexaCB (#141)	22,040 ± 3,500 ng/kg
2,2',3,4',5,5'-HexaCB (#146)	39,500 ± 17,000 ng/kg
2,2',3,4',5',6'-HexaCB (#149)	69,800 ± 24,600 ng/kg
2,2',3,5,5',6'-HexaCB (#151)	24,900 ± 11,100 ng/kg
2,2',4,4',5,5'-HexaCB (#153)	226,000 ± 71,200 ng/kg
2,3,3',4,4',5'-HexaCB (#156)	13,100 ± 2,620 ng/kg
2,3,3',4,4',5'-HexaCB (#157)	3,380 ± 1,010 ng/kg
2,3,3',4,4',6'-HexaCB (#158)	11,600 ± 1,870 ng/kg
2,3',4,4',5,5'-HexaCB (#167)	7,060 ± 3,020 ng/kg
3,3',4,4',5,5'-HexaCB (#169)	52.1 ± 14.0 ng/kg
2,2',3,3',4,4',5'-HeptaCB (#170)	35,100 ± 12,700 ng/kg
2,2',3,3',4,5,5'-HeptaCB (#172)	8,450 ± 1,600 ng/kg
2,2',3,3',4',5,6'-HeptaCB (#177)	18,800 ± 4,140 ng/kg
2,2',3,3',5,5',6'-HeptaCB (#178)	12,100 ± 1,840 ng/kg
2,2',3,4,4',5,5'-HeptaCB (#180)	108,000 ± 23,600 ng/kg
2,2',3,4,4',5',6'-HeptaCB (#183)	28,300 ± 6,740 ng/kg
2,2',3,4',5,5',6'-HeptaCB (#187)	62,900 ± 21,600 ng/kg
2,3,3',4,4',5,5'-HeptaCB (#189)	1,440 ± 498 ng/kg
2,2',3,3',4,4',5,5'-OctaCB (#194)	12,700 ± 3,200 ng/kg
2,2',3,3',4,4',5,6'-OctaCB (#195)	4,620 ± 1,450 ng/kg
2,2',3,3',4,4',5',6'-OctaCB (#196)	7,720 ± 3,240 ng/kg
2,2',3,3',4,5,6,6'-OctaCB (#199)	16,700 ± 2,400 ng/kg
2,2',3,4,4',5,5',6'-OctaCB (#203)	13,800 ± 2,360 ng/kg
2,2',3,3',4,4',5,5',6'-NonaCB (#206)	4,960 ± 768 ng/kg
2,2',3,3',4,5,5',6,6'-NonaCB (#208)	2,370 ± 350 ng/kg
DecaCB (#209)	3,510 ± 982 ng/kg

Brominated flame retardants

2,4,4'-TriBDE (#28)6	312 ± 202 ng/kg
2,2',4,4'-TetraBDE (#47)	9,080 ± 2,620 ng/kg
2,2',4,5'-TetraBDE (#49)	524 ± 274 ng/kg
2,3',4,4'-TetraBDE (#66)	262 ± 81.0 ng/kg
2,2',4,4',5'-PentaBDE (#99)	2,280 ± 472 ng/kg
2,2',4,4',6'-PentaBDE (#100)	1,720 ± 566 ng/kg
2,2',4,4',5,5'-HexaBDE (#153)	2,030 ± 506 ng/kg
2,2',4,4',5,6'-HexaBDE (#154)	2,550 ± 1,000 ng/kg
2,2',3,4,4',5',6'-HeptaBDE (#183)	137 ± 47.8 ng/kg
DecaBDE (#209)	545 ± 1,999 ng/kg

Pesticides

Chlordane	33,400 ± 6,300 ng/kg	Lindane (gamma-HCH)	492 ± 216 ng/kg
4,4'-DDE	587,000 ± 140,000 ng/kg	Heptachlor	1,970 ± 1,110 ng/kg
4,4'-DDD	97,600 ± 33,200 ng/kg	Heptachlor Epoxide	8,210 ± 1,560 ng/kg
4,4'-DDT	9,100 ± 2,700 ng/kg	Hexachlorobenzene	18,100 ± 15,300 ng/kg
Dieldrin	54,500 ± 17,300 ng/kg	Mirex	93,700 ± 23,200 ng/kg
Endosulfan I	1,310 ± 722 ng/kg	cis-Nonachlor	27,700 ± 6,400 ng/kg
Endosulfan II	10,100 ± 1,620 ng/kg	trans-Nonachlor	57,700 ± 51,000 ng/kg
Endrin	2,420 ± 434 ng/kg	Oxychlordane	18,100 ± 11,200 ng/kg
alpha-Hexachlorocyclohexane	1,400 ± 1,140 ng/kg	alpha-Chlordane	30,100 ± 19,000 ng/kg
beta-Hexachlorocyclohexane	834 ± 436 ng/kg	gamma-Chlordane	11,500 ± 7,240 ng/kg

Food Matrix Reference materials

Code

CIL-EDF-2526

Product

Fortified Fish - Organic contaminants 强化鱼-有机污染物

Unit

10 g

Reference values

Polychlorinated dioxins and furans

2,3,7,8 TCDD	19.8 ± 4.18 ng/kg	1,2,3,7,8-PeCDF	39.0 ± 7.36 ng/kg
Total TCDD	19.0 ± 1.08 ng/kg	2,3,4,7,8-PeCDF	37.8 ± 10.2 ng/kg
1,2,3,7,8-PeCDD	39.9 ± 10.6 ng/kg	Total PeCDF	72.0 ± 14.9 ng/kg
Total PeCDD	38.9 ± 13.7 ng/kg	1,2,3,4,7,8-HxCDF	83.3 ± 23.0 ng/kg
1,2,3,4,7,8-HxCDD	54.9 ± 7.80 ng/kg	1,2,3,6,7,8-HxCDF	62.8 ± 19.6 ng/kg
1,2,3,6,7,8-HxCDD	51.1 ± 19.3 ng/kg	1,2,3,7,8,9-HxCDF	57.3 ± 10.9 ng/kg
1,2,3,7,8,9-HxCDD	52.9 ± 18.1 ng/kg	2,3,4,6,7,8-HxCDF	58.6 ± 14.2 ng/kg
Total HxCDD	149 ± 41.8 ng/kg	Total HxCDF	243 ± 70.8 ng/kg
1,2,3,4,6,7,8-HpCDD	70.7 ± 23.2 ng/kg	1,2,3,4,6,7,8-HpCDF	81.6 ± 13.7 ng/kg
Total HpCDD	66.9 ± 32.2 ng/kg	1,2,3,4,7,8,9-HpCDF	76.7 ± 26.6 ng/kg
OCDD	181 ± 53.4 ng/kg	Total HpCDF	148 ± 23.0 ng/kg
2,3,7,8-TCDF	18.7 ± 5.58 ng/kg	OCDF	185 ± 57.4 ng/kg
Total TCDF	19.0 ± 2.20 ng/kg		

Polychlorinated biphenyls

2,2',5'-TriCB (#18)	100 ± 49.0 ng/kg	2',3,4,4',5'-PentaCB (#123)	7.38 ± 9.58 ng/kg
2,4,4'-TriCB (#28)	245 ± 268 ng/kg	3,3',4,4',5'-PentaCB (#126)	431 ± 17.9 ng/kg
2,2',5,5'-TetraCB (#52)	369 ± 124 ng/kg	2,2',3,4,4',5'-HexaCB (#138)	395 ± 184 ng/kg
3,3',4,4'-TetraCB (#77)	451 ± 179 ng/kg	2,2',3,5,5',6'-HexaCB (#151)	99.8 ± 17.1 ng/kg
3,4,4',5'-TetraCB (#81)	3.00 ± 5.60 ng/kg	2,2',4,4',5,5'-HexaCB (#153)	490 ± 334 ng/kg
2,2',4,4',5'-PentaCB (#99)	215 ± 204 ng/kg	2,3,3',4,4',5'-HexaCB (#156)	23.3 ± 23.8 ng/kg
2,2',4,5,5'-PentaCB (#101)	579 ± 362 ng/kg	2,3,3',4,4',5'-HexaCB (#157)	9.30 ± 9.16 ng/kg
2,3,3',4,4'-PentaCB (#105)	108 ± 73.0 ng/kg	2,3',4,4',5,5'-HexaCB (#167)	12.0 ± 9.54 ng/kg
2,3,3',4,6'-PentaCB (#110)	288 ± 112 ng/kg	3,3',4,4',5,5'-HexaCB (#169)	512 ± 160 ng/kg
2,3,4,4',5'-PentaCB (#114)	7.73 ± 4.36 ng/kg	2,2',3,4,4',5,5'-HeptaCB (#180)	116 ± 64.4 ng/kg
2,3',4,4',5'-PentaCB (#118)	348 ± 392 ng/kg	2,3,3',4,4',5,5'-HeptaCB (#189)	3.51 ± 2.76 ng/kg

Polybrominated diphenyl ethers

2,2',4,4',5,5'-HexaBDE (#153)	7.48 ± 14.7 ng/kg
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Food Matrix Reference materials

Code	Product	Unit
CIL-EDF-4023	Set of three fish reference materials 三种（洁净/污染/强化）鱼的标准样品 Clean Natural Matrix (EDF 2524) 洁净的自然基质 Contaminated Natural Matrix (EDF 2525) 污染的自然基质 Fortified Natural Matrix (EDF 2526) 强化的自然基质	3 x 10 g
BDS-BRM-04	Fishoil - DR CALUX® TEQ (Low) 鱼油- DR CALUX® TEQ (Low) DR CALUX® TEQ Expected value ^A (n=16) DR CALUX® TEQ per gram product 3.7 pg HRGC/MS PCDD/PCDF TEQ ^C (n=1) PCDD/PCDF TEQ per gram product ... 0.35 pg HRGC/MS PCB TEQ ^C (n=1) PCB TEQ per gram product 1.85 pg HRGC/MS PCDD/PCDF/PCB TEQ ^C (n=1) PCDD/PCDF/PCB TEQ per gram... 2.2 pg ^A The average value is based in the robust mean as mentioned in the ISO57328. ^B Uncertainty is based on the robust standard deviation as mentioned in the ISO57328. ^C Based on quantified congeners and WHO-TEF's	100 g
BDS-BRM-05	Fishoil - DR CALUX® TEQ (Middle) 鱼油- DR CALUX® TEQ (Middle) DR CALUX® TEQ Expected value ^A (n=16) DR CALUX® TEQ per gram product 8.8 pg HRGC/MS PCDD/PCDF TEQ ^C (n=1) PCDD/PCDF TEQ per gram product ... 0.68 pg HRGC/MS PCB TEQ ^C (n=1) PCB TEQ per gram product 7.0 pg HRGC/MS PCDD/PCDF/PCB TEQ ^C (n=1) PCDD/PCDF/PCB TEQ per gram... 7.7 pg ^A The average value is based in the robust mean as mentioned in the ISO57328. ^B Uncertainty is based on the robust standard deviation as mentioned in the ISO57328. ^C Based on quantified congeners and WHO-TEF's	100 g
BDS-BRM-06	Fishoil - DR CALUX® TEQ (High) 鱼油- DR CALUX® TEQ (Middle) DR CALUX® TEQ Expected value ^A (n=16) DR CALUX® TEQ per gram product 16 pg HRGC/MS PCDD/PCDF TEQ ^C (n=1) PCDD/PCDF TEQ per gram product ... 6.2 pg HRGC/MS PCB TEQ ^C (n=1) PCB TEQ per gram product ... 8.6 pg HRGC/MS PCDD/PCDF/PCB TEQ ^C (n=1) PCDD/PCDF/PCB TEQ per gram ... 14.8 pg ^A The average value is based in the robust mean as mentioned in the ISO57328. ^B Uncertainty is based on the robust standard deviation as mentioned in the ISO57328. ^C Based on quantified congeners and WHO-TEF's	100 g
BDS-BRM-04-06	Fishoil - DR CALUX® TEQ (Kit) 鱼油- DR CALUX® TEQ Each Kit consists of one unit of BDS-BRM-04 ... Fishoil - CALUX® TEQ (Low) BDS-BRM-05 ... Fishoil - CALUX® TEQ (Middle) BDS-BRM-06 ... Fishoil - CALUX® TEQ (High)	kit

Food Matrix Reference materials

谷物

编号	描述	规格
ERM-BC382	小麦粉-基本成分和元素	vial
BCR-121	全麦粉-维生素	50 g
BCR-563	普通小麦粉-基本属性	360 g
BCR-396	小麦粉-呕吐毒素 (blank)	150 g
BCR-471	小麦粉-赭曲霉毒素 A (blank)	55 g
B-MYC0855	小麦粉-呕吐毒素	100 g
B-MYC0880	小麦粉-赭曲霉毒素 A	100 g
BCR-377	玉米粉-呕吐毒素 (blank)	150 g
ERM-BC716	玉米-很低含量的玉米赤霉烯酮(ZON 毒素)	60 g
ERM-BC717	玉米-低含量的玉米赤霉烯酮(ZON 毒素)	60 g
B-MYC0850	玉米粉-呕吐毒素	100 g
B-MYC0860	玉米粉-玉米赤霉烯酮毒素	100 g
B-MYC0870	玉米粉-伏马毒素 B1 & B2	100 g
B-MYC0880	小麦粉-赭曲霉毒素 A	100 g
IC-INCT-CF-3	玉米粉 – 微量元素	50 g
ERM-BC381	黑麦粉-基本成分和元素	vial
BCR-465	米粉-直链淀粉 (low level)	10 g
BCR-466	米粉-直链淀粉 (medium level)	10 g
BCR-467	米粉-直链淀粉 (high level)	10 g
IRMM-804	米粉-微量元素	15 g
ERM-BC190	油菜籽-总苷 (glucosinolate) 与硫 (sulfur)	20 g
ERM-BC366	油菜籽-总苷 (glucosinolate) 与硫 (sulfur)	20 g
ERM-BC367	油菜籽-总苷 (glucosinolate) 与硫 (sulfur)	20 g
BCR-446	油菜籽-含油量 (low)	153 g
BCR-447	油菜籽-含油量 (medium)	153 g
BCR-448	油菜籽-含油量 (high)	153 g

*详细参数参见表后数据

Code	Product	Unit
Wheat		
ERM-BC382	Wheat flour - Proximates and essential elements 小麦粉-基本成分和元素 One unit contains about 37 g of wheat flour filled under argon in 100 mL amber glass vials. Certified value Uncertainty Kjeldahl nitrogen 1.851 g/100 g ... 0.017 g/100 g Total fat 1.39 g/100 g ... 0.17 g/100 g Ash 0.60 g/100 g ... 0.10 g/100 g Starch ... 81.2 g/100 g ... 1.7 g/100 g K ... 1.88 mg/g 0.08 mg/g Mg ... 0.247 mg/g 0.010 mg/g Ca 0.210 mg/g 0.018 mg/g P ... 1.19 mg/g 0.07 mg/g	vial
BCR-121	Wholewheat flour – Vitamins 全麦粉-维生素 Certified values B1 (thiamin)..... 4.63 mg/kg Folate (total) 0.5 mg/kg B6 (total pyridoxine) 4.10 mg/kg	50 g
BCR-563	Common wheat flour – Properties 普通小麦粉-基本属性 Certified parameters determined according to ISO and ICC standard: Protein content, Ash content, Falling number / s, Zeleny sedimentation, Chopin Alveograph, Brabender Farinograph, Brabender Extensograph.	360 g

Food Matrix Reference materials

Code	Product	Unit
BCR-396	Wheat flour - Deoxynivalenol (DON) blank 小麦粉-呕吐毒素 (blank) Certified value Deoxynivalenol <0.05 mg/kg	150 g
BCR-471	Wheat - Ochratoxin A (blank) 小麦粉-赭曲霉毒素A (blank) Certified value Ochratoxin A < 0.6 µg /kg	55 g
B-MYC0855	Wheat flour – Deoxynivalenol 小麦粉-呕吐毒素 Certified value Deoxynivalenol 1062 ± 116 µg/kg	100 g
B-MYC0880	Wheat flour - Ochratoxin A 小麦粉-赭曲霉毒素A Certified value Ochratoxin A 2.7 ± 1.0 µg/kg	100 g
Corn		
BCR-377	Maize flour - Deoxynivalenol (blank) 玉米粉-呕吐毒素 (blank) Certified value Deoxynivalenol <0.05 mg/kg	150 g
ERM-BC716	Maize - very low level ZON 玉米-很低含量的玉米赤霉烯酮(ZON毒素) Compound Certified value Zearalenone □ 5 µg/kg	60 g
ERM-BC717	Maize - low level ZON 玉米-低含量的玉米赤霉烯酮(ZON毒素) Compound Certified value Uncertainty Zearalenone 83 µg/kg 9 µg/kg	60 g
B-MYC0850	Maize flour – Deoxynivalenol 玉米粉-呕吐毒素 Certified value Deoxynivalenol 474 µg/kg ± 30 µg/kg	100 g
B-MYC0860	Maize flour – Zearalenone 玉米粉-玉米赤霉烯酮毒素 Certified value Zearalenone 60 ± 9 µg/kg	100 g
B-MYC0870	Maize flour - Fumonisin B1 and B2 玉米粉-伏马毒素 B1 & B2 Certified value Fumonisin B1 2406 ± 612 µg/kg Fumonisin B2 630 ± 116 µg/kg	100 g
B-MYC0880	Wheat flour - Ochratoxin A 小麦粉-赭曲霉毒素A Certified value Ochratoxin A 2.7 ± 1.0 µg/kg	100 g
IC-INCT-CF-3	Corn flour - Trace elements 玉米粉 – 微量元素 Certified values B 1.65 ± 0.33 mg/kg La 6.6 ± 1.2 ng/kg P 2831 ± 97 mg/kg Br 0.388 ± 0.046 mg/kg Sc 2.13 ± 0.32 ng/kg Rb 0.912 ± 0.042 mg/kg Cl 397 ± 33 mg/kg Mg 1066 ± 37 mg/kg S 919 ± 121 mg/kg Cu 1.63 ± 0.13 mg/kg Mn 4.98 ± 0.22 mg/kg Zn 20.09 ± 0.76 mg/kg Fe 32.0 ± 1.4 mg/kg Mo 1.52 ± 12 ng/kg K 3157 ± 119 mg/kg Ni 0.383 ± 0.039 mg/kg Indicative values for Al, As, Ba, Ca, Hg, Na, Pb, Sb	50 g
Rye		
ERM-BC381	Rye flour - Proximates and essential elements 黑麦粉-基本成分和元素 One unit contains about 37 g of rye flour filled under argon in a 100 mL amber glass vial. Certified value Uncertainty Kjeldahl nitrogen 1.562 g/100 g 0.014 g/100 g Total fat 1.36 g/100 g 0.16 g/100 g Ash 1.08 g/100 g 0.11 g/100 g Starch 72.2 g/100 g 1.9 g/100 g K 3.35 mg/g 0.11 mg/g Mg 0.567 mg/g 0.013 mg/g Ca 0.32 mg/g 0.04 mg/g P 2.01 mg/g 0.07 mg/g	vial

Food Matrix Reference materials

Rice

Code	Product	Unit		
BCR-465	Rice flour - Amylose (low level) 米粉-直链淀粉（low level）	10 g		
	Certified value			
	Amylose 15.4 g/100 g			
BCR-466	Rice flour - Amylose (medium level) 米粉-直链淀粉（medium level）	10 g		
	Certified value			
	Amylose 23.1 g/100 g			
BCR-467	Rice flour - Amylose (high level) 米粉-直链淀粉（high level）	10 g		
	Certified value			
	Amylose 27.7 g/100 g			
IRMM-804	Rice flour - Trace elements 米粉-微量元素	15 g		
	Compound		Certified value	Uncertainty
			(mg/kg)	(mg/kg)
	As		0.049	0.004
	Cd.....		1.61	0.07
	Cu.....		2.74	0.24
	Mn		34.2	2.3
	Pb		0.42	0.07
	Zn		23.1	1.9

Rapeseed

ERM-BC190	Rapeseed (colza) - Total glucosinolate and sulfur油菜籽-总苷（glucosinolate）与硫（sulfur） Certified values Total glucosinolate 23 mmol/kg S 4.72 g/kg	20 g
ERM-BC366	Rapeseed (colza) - Total glucosinolate and sulfur油菜籽-总苷（glucosinolate）与硫（sulfur） Certified values Total glucosinolate ... 11.9 mmol/kg S 3.31 g/kg	20 g
ERM-BC367	Rapeseed (colza) - Total glucosinolate and sulfur油菜籽-总苷（glucosinolate）与硫（sulfur） Certified values Total glucosinolate99 mmol/kg S ... 10.3 g/kg	20 g
BCR-446	Rapeseed - Oil content (low)油菜籽-含油量（low） Certified values "As is" oil 39.49 g/100 g Moisture and volatiles 7.01 g/100 g Dry basis oil 42.48 g/100 g	153 g
BCR-447	Rapeseed - Oil content (medium)油菜籽-含油量（medium） Certified values "As is" oil 41.99 g/100 g Moisture and volatiles 7.42 g/100 g Dry basis oil 45.36 g/100 g	153 g
BCR-448	Rapeseed - Oil content (high)油菜籽-含油量（high） Certified values "As is" oil 45.43 g/100 g Moisture and volatiles 7.68 g/100 g Dry basis oil 49.21 g/100 g	153 g

Food Matrix Reference materials

转基因作物

编号	描述	规格
ERM-BF410BK	转基因大豆 (0.1%)	1 g
ERM-BF410C	转基因大豆 (0.5%)	1 g
ERM-BF410AK	大豆粉- GTS 40-3-2 Soya (0%)	1 g
ERM-BF410DK	大豆粉- GTS 40-3-2 Soya (1%)	1 g
ERM-BF410GK	大豆粉- GTS 40-3-2 Soya (10%)	1 g
ERM-BF425A	大豆粉-356043 Soya (0%)	vial
ERM-BF425B	大豆粉-356043 Soya (0.1%)	vial
ERM-BF425C	大豆粉-356043 Soya (1%)	vial
ERM-BF425D	大豆粉-356043 Soya (10%)	vial
ERM-BF426A	大豆粉-305423 Soya (0%)	vial
ERM-BF426B	大豆粉-305423 Soya (0.5%)	vial
ERM-BF426C	大豆粉-305423 Soya (1%)	vial
ERM-BF426D	大豆粉-305423 Soya (10%)	vial
ERM-BF411A	玉米粉-转基因 Bt-176 Maize (0%)	1 g
ERM-BF411B	玉米粉-转基因 Bt-176 Maize (0.1%)	1 g
ERM-BF411C	玉米粉-转基因 Bt-176 Maize (0.5%)	1 g
ERM-BF411D	玉米粉-转基因 Bt-176 Maize (1%)	1 g
ERM-BF411E	玉米粉-转基因 Bt-176 Maize (2%)	1 g
ERM-BF411F	玉米粉-转基因 Bt-176 Maize (5%)	1 g
ERM-BF412A	玉米粉-转基因 Bt-11 Maize (0%)	1 g
ERM-BF412C	玉米粉-转基因 Bt-11 Maize (0.5%)	1 g
ERM-BF412D	玉米粉-转基因 Bt-11 Maize (1%)	1 g
ERM-BF412E	玉米粉-转基因 Bt-11 Maize (2%)	1 g
ERM-BF412F	玉米粉-转基因 Bt-11 Maize (5%)	1 g
ERM-BF413A	玉米粉-转基因 MON-810 Maize (0%)	1 g
ERM-BF413B	玉米粉-转基因 MON-810 Maize (0.1%)	1 g
ERM-BF413C	玉米粉-转基因 MON-810 Maize (0.5%)	1 g
ERM-BF413D	玉米粉-转基因 MON-810 Maize (1%)	1 g
ERM-BF413E	玉米粉-转基因 MON-810 Maize (2%)	1 g
ERM-BF413F	玉米粉-转基因 MON-810 Maize (5%)	1 g
ERM-BF414A	玉米粉-转基因 GA21 Maize (0%)	vial
ERM-BF414B	玉米粉-转基因 GA21 Maize (0.1%)	vial
ERM-BF414C	玉米粉-转基因 GA21 Maize (0.5%)	vial
ERM-BF414D	玉米粉-转基因 GA21 Maize (1%)	vial
ERM-BF414E	玉米粉-转基因 GA21 Maize (2%)	vial
ERM-BF414F	玉米粉-转基因 GA21 Maize (5%)	vial
ERM-BF415A	玉米粉-转基因 NK603 Maize (0%)	vial
ERM-BF415B	玉米粉-转基因 NK603 Maize (0.1%)	vial
ERM-BF415C	玉米粉-转基因 NK603 Maize (0.5%)	vial
ERM-BF415D	玉米粉-转基因 NK603 Maize (1%)	vial
ERM-BF415E	玉米粉-转基因 NK603 Maize (2%)	vial
ERM-BF415F	玉米粉-转基因 NK603 Maize (5%)	vial
ERM-BF416A	玉米粉-转基因 MON 863 Maize (0%)	vial
ERM-BF416B	玉米粉-转基因 MON 863 Maize (0.1%)	vial
ERM-BF416C	玉米粉-转基因 MON 863 Maize (1%)	vial
ERM-BF416D	玉米粉-转基因 MON 863 Maize (10%)	vial
ERM-BF417A	玉米粉-堆叠转基因 MON 863 x MON 810 Maize	vial

Food Matrix Reference materials

ERM-BF417B	玉米粉-堆叠转基因 MON 863 x MON 810 Maize	vial
ERM-BF417C	玉米粉-堆叠转基因 MON 863 x MON 810 Maize	vial
ERM-BF417D	玉米粉-堆叠转基因 MON 863 x MON 810 Maize	vial
ERM-BF418A	玉米粉-转基因 1507 Maize (0%)	vial
ERM-BF418B	玉米粉-转基因 1507 Maize (0.1%)	vial
ERM-BF418C	玉米粉-转基因 1507 Maize (1%)	vial
ERM-BF418D	玉米粉-转基因 1507 Maize (10%)	vial
ERM-BF420A	Event 3272 玉米种子粉 (blank)	vial
ERM-BF420B	Event 3272 玉米种子粉 (level 1)	vial
ERM-BF420C	Event 3272 玉米种子粉 (level 2)	vial
ERM-BF423A	转基因 MIR604 Maize (0%)	vial
ERM-BF423B	转基因 MIR604 Maize (0.1%)	vial
ERM-BF423C	转基因 MIR604 Maize (1%)	vial
ERM-BF423D	转基因 MIR604 Maize (10%)	vial
ERM-BF424A	转基因 59122 Maize (0%)	vial
ERM-BF424B	转基因 59122 Maize (0.1%)	vial
ERM-BF424C	转基因 59122 Maize (1%)	vial
ERM-BF424D	转基因 59122 Maize (10%)	vial
ERM-BF422A	转基因 281-24-236 x 3006-210-23 棉花种子 (0%)	vial
ERM-BF422B	转基因 281-24-236 x 3006-210-23 棉花种子 (100%)	vial
ERM-BF422C	转基因 281-24-236 x 3006-210-23 棉花种子 (1%)	vial
ERM-BF422D	转基因 281-24-236 x 3006-210-23 棉花种子 (10%)	vial
ERM-BF421A	EH92-527-1 马铃薯 (blank)	vial
ERM-BF421B	EH92-527-1 马铃薯 (level 1)	vial
ERM-BF419A	转基因 H7-1 甜菜 (blank)	vial
ERM-BF419B	转基因 H7-1 甜菜 (level 1)	vial
ERM-BF427A	玉米籽粉-98140 Maize (blank)	vial
ERM-BF427B	玉米籽粉-98140 Maize (0.5%)	vial
ERM-BF427C	玉米籽粉-98140 Maize (2%)	vial
ERM-BF427D	玉米籽粉-98140 Maize (10%)	vial
ERM-BF428A	棉花籽粉- GHB119 Cotton (blank)	vial
ERM-BF428B	棉花籽粉- GHB119 Cotton (1%)	vial
ERM-BF428C	棉花籽粉- GHB119 Cotton (10%)	vial
ERM-BF429A	棉花籽粉- T304-40 Cotton (blank)	vial
ERM-BF429B	棉花籽粉- T304-40 Cotton (1%)	vial
ERM-BF429C	棉花籽粉- T304-40 Cotton (10%)	vial

*详细参数参见表后数据

Genetically modified crops

ERM-BF410a - ERM-BF410f

Dried soya bean powders with different mass fractions of genetically modified ("Roundup Ready™") soya beans, intended for the calibration of methods for the detection of genetically modified food.

Code	Product	Unit
ERM-BF410BK	Genetically modified soya beans (0.1%) 转基因大豆 (0.1%)	1 g
	Certified value g/kg Uncertainty g/kg	
	GTS 40-3-2 Soja 1.0 0.5	

Food Matrix Reference materials

Code	Product	Unit
ERM-BF410C	Genetically modified soya beans (0.5%) 转基因大豆 (0.5%) Roundup Ready™ Certified value g/kg Uncertainty g/kg Soya bean content 5.0 1.0 ERM-BF410ak - ERM-BF410gk Dried soya seed powders with different mass fractions of genetically modified soya beans, intended for the calibration of methods for the detection of genetically modified food.	1 g
ERM-BF410AK	Soya seed powder - GTS 40-3-2 Soya (0%) 大豆粉- GTS 40-3-2 Soya (0%) Certified value GTS 40-3-2 Soya < 0.7 g/kg	1 g
ERM-BF410DK	Soya seed powder - GTS 40-3-2 Soya (1%) 大豆粉- GTS 40-3-2 Soya (1%) Certified value g/kg Uncertainty g/kg GTS 40-3-2 Soya 10.0 1.0	1 g
ERM-BF410GK	Soya seed powder - GTS 40-3-2 Soya (10 %) 大豆粉- GTS 40-3-2 Soya (10%) Certified value g/kg Uncertainty g/kg GTS 40-3-2 Soya 100 7 ERM-BF425a - ERM-BF425d Dried soya seed powders with different mass fractions of genetically modified soya beans, intended for the calibration of methods for the detection of genetically modified food.	1 g
ERM-BF425A	Soya seed powder - 356043 Soya (0%) 大豆粉-356043 Soya (0%) Certified value g/kg 356043 Soya < 0.5	vial
ERM-BF425B	Soya seed powder - 356043 Soya (0.1%) 大豆粉-356043 Soya (0.1%) Certified value g/kg Uncertainty g/kg 356043 Soya 1.0 0.4	vial
ERM-BF425C	Soya seed powder - 356043 Soya (1%) 大豆粉-356043 Soya (1%) Certified value g/kg Uncertainty g/kg 356043 Soya 10.0 1.1	vial
ERM-BF425D	Soya seed powder - 356043 Soya (10%) 大豆粉-356043 Soya (10%) Certified value g/kg Uncertainty g/kg 356043 Soya 100 9 ERM-BF426a - ERM-BF426d Dried soya seed powders with different mass fractions of genetically modified soya beans, intended for the calibration of methods for the detection of genetically modified food.	vial
ERM-BF426A	Soya seed powder - 305423 Soya (0%) 大豆粉-305423 Soya (0%) Certified value g/kg 305423 Soja < 0.8	vial
ERM-BF426B	Soya seed powder - 305423 Soya (0.5%) 大豆粉-305423 Soya (0.5%) Certified value g/kg Uncertainty g/kg 305423 Soya 5 0.8	vial
ERM-BF426C	Soya seed powder - 305423 Soya (1%) 大豆粉-305423 Soya (1%) Certified value g/kg Uncertainty g/kg 305423 Soya 10 1	vial
ERM-BF426D	Soya seed powder - 305423 Soya (10%) 大豆粉-305423 Soya (10%) Certified value g/kg Uncertainty g/kg 305423 Soya 100 7 ERM-BF411a - ERM-BF411f Dried maize powders with different mass fractions of genetically modified ("Bt-176") maize, intended for the calibration of methods for the detection of genetically modified food.	vial
ERM-BF411A	Genetically Modified Bt-176 Maize (0%) 玉米粉-转基因Bt-176 Maize (0%) Certified value g/kg Bt-176 maize content □ 0.14	1 g
ERM-BF411B	Genetically Modified Bt-176 Maize (0.1%) 玉米粉-转基因Bt-176 Maize (0.1%) Certified value g/kg Uncertainty g/kg Bt-176 maize content 1.00 0.29	1 g

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Code	Product	Unit
ERM-BF411C	Genetically Modified Bt-176 Maize (0.5%) 玉米粉-转基因Bt-176 Maize (0.5%) Certified value g/kg Uncertainty g/kg Bt-176 maize content 5.00 0.6	1 g
ERM-BF411D	Genetically Modified Bt-176 Maize (1%) 玉米粉-转基因Bt-176 Maize (1%) Certified value g/kg Uncertainty g/kg Bt-176 maize content 10.0 0.8	1 g
ERM-BF411E	Genetically Modified Bt-176 Maize (2%) 玉米粉-转基因Bt-176 Maize (2%) Certified value g/kg Uncertainty g/kg Bt-176 maize content 20.0 1.1	1 g
ERM-BF411F	Genetically Modified Bt-176 Maize (5%) 玉米粉-转基因Bt-176 Maize (5%) Certified value g/kg Uncertainty g/kg Bt-176 maize content 50.0 1.8	1 g
ERM-BF412a - ERM-BF412f Dried maize powders with different mass fractions of genetically modified ("Bt-11") maize, intended for the calibration of methods for the detection of genetically modified food.		
ERM-BF412A	Genetically Modified Bt-11 Maize (0%) 玉米粉-转基因Bt-11 Maize (0%) Certified value g/kg Bt-11 maize content □ 0.12	1 g
ERM-BF412B	Genetically Modified Bt-11 Maize (0.1%) Certified value g/kg Uncertainty g/kg Bt-11 maize content 0.98 0.29	1 g
ERM-BF412C	Genetically Modified Bt-11 Maize (0.5%) 玉米粉-转基因Bt-11 Maize (0.5%) Certified value g/kg Uncertainty g/kg Bt-11 maize content 4.9 0.6	1 g
ERM-BF412D	Genetically Modified Bt-11 Maize (1%) 玉米粉-转基因Bt-11 Maize (1%) Certified value g/kg Uncertainty g/kg Bt-11 maize content 9.8 0.9	1 g
ERM-BF412E	Genetically Modified Bt-11 Maize (2%) 玉米粉-转基因Bt-11 Maize (2%) Certified value g/kg Uncertainty g/kg Bt-11 maize content 19.6 1.3	1 g
ERM-BF412F	Genetically Modified Bt-11 Maize (5%) 玉米粉-转基因Bt-11 Maize (5%) Certified value g/kg Uncertainty g/kg Bt-11 maize content 48.9 2.1	1 g
ERM-BF413a - ERM-BF413f Dried maize powders with different mass fractions of genetically modified ("MON 810") maize, intended for the calibration of methods for the detection of genetically modified food.		
ERM-BF413A	Genetically modified MON-810 Maize (0%) 玉米粉-转基因MON-810 Maize (0%) Certified value g/kg MON 810 maize content □ 0.2	1 g
ERM-BF413B	Genetically modified MON-810 Maize (0.1%) 玉米粉-转基因MON-810 Maize (0.1%) Certified value g/kg Uncertainty g/kg MON 810 maize content 1.00 0.26	1 g
ERM-BF413C	Genetically modified MON-810 Maize (0.5%) 玉米粉-转基因MON-810 Maize (0.5%) Certified value g/kg Uncertainty g/kg MON 810 maize content 5.0 0.4	1 g
ERM-BF413D	Genetically modified MON-810 Maize (1%) 玉米粉-转基因MON-810 Maize (1%) Certified value Uncertainty MON 810 maize content 10.0 g/kg 0.5 g/kg MON 810 maize DNA 0.57 % 0.17 % copy number	1 g
ERM-BF413E	Genetically modified MON-810 Maize (2%) 玉米粉-转基因MON-810 Maize (2%) Certified value g/kg Uncertainty g/kg MON 810 maize content 20.0 0.6	1 g

Food Matrix Reference materials

Code	Product	Unit
ERM-BF413F	Genetically modified MON-810 Maize (5%) 玉米粉-转基因MON-810 Maize (5%) Certified value g/kg Uncertainty g/kg MON 810 maize content ... 50.0 ... 1.1	1 g
ERM-BF414a - ERM-BF414f		
Dried maize powders with different mass fractions of genetically modified ("GA21") maize, intended for the calibration of methods for the detection of genetically modified food.		
ERM-BF414A	Genetically modified GA21 Maize (0%) 玉米粉-转基因GA21 Maize (0%) Certified value g/kg GA21 maize content ... 0.8	vial
ERM-BF414B	Genetically modified GA21 Maize (0.1%) 玉米粉-转基因GA21 Maize (0.1%) Certified value g/kg Uncertainty g/kg GA21 maize content ... 1.0 ... 0.8	vial
ERM-BF414C	Genetically modified GA21 Maize (0.5%) 玉米粉-转基因GA21 Maize (0.5%) Certified value g/kg Uncertainty g/kg GA21 maize content ... 4.9 ... 1.0	vial
ERM-BF414D	Genetically modified GA21 Maize (1%) 玉米粉-转基因GA21 Maize (1%) Certified value g/kg Uncertainty g/kg GA21 maize content ... 9.9 ... 1.1	vial
ERM-BF414E	Genetically modified GA21 Maize (2%) 玉米粉-转基因GA21 Maize (2%) Certified value g/kg Uncertainty g/kg GA21 maize content ... 17.2 ... 1.2	vial
ERM-BF414F	Genetically modified GA21 Maize (5%) 玉米粉-转基因GA21 Maize (5%) Certified value g/kg Uncertainty g/kg GA21 maize content ... 42.9 ... 1.7	vial
ERM-BF415a - ERM-BF415f		
Dried maize powders with different mass fractions of genetically modified ("NK603") maize, intended for the calibration of methods for the detection of genetically modified food.		
ERM-BF415A	Genetically modified NK603 Maize (0%) 玉米粉-转基因NK603 Maize (0%) Certified value g/kg NK603 maize content... 0.4	vial
ERM-BF415B	Genetically modified NK603 Maize (0.1%) 玉米粉-转基因NK603 Maize (0.1%) Certified value g/kg Uncertainty g/kg NK603 maize content... 1.0 ... 0.4	vial
ERM-BF415C	Genetically modified NK603 Maize (0.5%) 玉米粉-转基因NK603 Maize (0.5%) Certified value g/kg Uncertainty g/kg NK603 maize content... 4.9 ... 0.5	vial
ERM-BF415D	Genetically modified NK603 Maize (1%) 玉米粉-转基因NK603 Maize (1%) Certified value g/kg Uncertainty g/kg NK603 maize content... 9.8 ... 0.7	vial
ERM-BF415E	Genetically modified NK603 Maize (2%) 玉米粉-转基因NK603 Maize (2%) Certified value g/kg Uncertainty g/kg NK603 maize content... 19.6 ... 0.9	vial
ERM-BF415F	Genetically modified NK603 Maize (5%) 玉米粉-转基因NK603 Maize (5%) Certified value g/kg Uncertainty g/kg NK603 maize content ... 49.1 ... 1.3	vial
ERM-BF416a - ERM-BF416f		
Dried maize powders with different mass fractions of genetically modified ("MON 863") maize, intended for the calibration of methods for the detection of genetically modified food.		
ERM-BF416A	Genetically modified MON 863 Maize (0%) 玉米粉-转基因MON 863 Maize (0%) Certified value ¹ g/kg MON 863 Maize ... 1.0 1) No contamination was detected in the non-GM material when applying event-specific MON 863 realtime PCR with a detection limit of 0.8 g / kg. With a confidence level of 95 % the MON 863 mass fraction is below the certified value.	vial

Food Matrix Reference materials

Code	Product	Unit
ERM-BF416B	Genetically modified MON 863 Maize (0.1%) 玉米粉-转基因MON 863 Maize (0.1%) Certified value g/kg Uncertainty g/kg MON 863 Maize 1.0 -0.3 ; +1.0	vial
ERM-BF416C	Genetically modified MON 863 Maize (1%) 玉米粉-转基因MON 863 Maize (1%) Certified value g/kg Uncertainty g/kg MON 863 Maize 9.8 -0.7 ; +1.2	vial
ERM-BF416D	Genetically modified MON 863 Maize (10%) 玉米粉-转基因MON 863 Maize (10%) Certified value g/kg Uncertainty g/kg MON 863 Maize 98.5 -2.2 ; +2.5	vial
ERM-BF417a - ERM-BF417f	Dried maize powders with different mass fractions of genetically modified ("MON 863 + MON 810") maize, intended for the calibration of methods for the detection of genetically modified food.	
ERM-BF417A	Stacked Genetically modified MON 863 x MON 810 Maize 玉米粉-堆叠转基因MON 863 x MON 810 Maize Certified value ¹ g/kg MON 863 x MON 810 Maize □ 1.0 1) No contamination was detected in the non-GM material when applying event-specific MON 863 realtime PCR with a detection limit of 0.8 g/kg and no contamination was detected when applying event-specific MON 810 realtime PCR with a detection limit of 1.1g /kg. With a confidence level of 95 % the MON 863 x MON 810 maize mass fraction is below the certified value.	vial
ERM-BF417B	Stacked Genetically modified MON 863 x MON 810 Maize 玉米粉-堆叠转基因MON 863 x MON 810 Maize Certified value g/kg Uncertainty g/kg MON 863 x MON 810 Maize 1.0 -0.2 ; +1.0	vial
ERM-BF417C	Stacked Genetically modified MON 863 x MON 810 Maize 玉米粉-堆叠转基因MON 863 x MON 810 Maize Certified value g/kg Uncertainty g/kg MON 863 x MON 810 Maize 9.8 -0.7 ; +1.2	vial
ERM-BF417D	Stacked Genetically modified MON 863 x MON 810 Maize 玉米粉-堆叠转基因MON 863 x MON 810 Maize Certified value g/kg Uncertainty g/kg MON 863 x MON 810 Maize 98.5 -2.0 ; +2.4	vial
ERM-BF418a - ERM-BF418f	Dried maize powders with different mass fractions of genetically modified ("1507") maize, intended for the calibration of methods for the detection of genetically modified food.	
ERM-BF418A	Genetically modified 1507 Maize (0%) 玉米粉-转基因1507 Maize (0%) Certified value ¹ g/kg 1507 maize..... < 0.5 1) No contamination was detected in the non-GM material when applying event-specific 1507 real-time PCR with a detection limit of 0.4 g/kg. With a confidence level of 95 % the 1507 maize mass fraction is below the certified value.	vial
ERM-BF418B	Genetically modified 1507 Maize (0.1%) 玉米粉-转基因1507 Maize (0.1%) Certified value g/kg Uncertainty g/kg 1507 maize..... 1.0 -0.2; +0.6	vial
ERM-BF418C	Genetically modified 1507 Maize (1%) 玉米粉-转基因1507 Maize (1%) Certified value g/kg Uncertainty g/kg 1507 maize..... 9.9 -0.6; +0.8	vial
ERM-BF418D	Genetically modified 1507 Maize (10%) 玉米粉-转基因1507 Maize (10%) Certified value g/kg Uncertainty g/kg 1507 maize..... 98.6 -1.7; +2.0	vial
ERM-BF420a - ERM-Bf420c	Dried maize powders with different mass fractions of genetically modified Event 3272 maize intended for the calibration of methods for the detection of genetically modified food.	
ERM-BF420A	Event 3272 maize seed powder (blank) Event 3272 玉米种子粉 (blank) Certified value g/kg Event 3272 maize □ 1.3	vial
ERM-BF420B	Event 3272 maize seed powder (level 1) Event 3272 玉米种子粉 (level 1) Certified value g/kg Uncertainty g/kg Event 3272 maize 9.8 1.2	vial

Food Matrix Reference materials

Code	Product	Unit
ERM-BF420C	Event 3272 maize seed powder (level 2) Event 3272 玉米种子粉 (level 2) Certified value g/kg Uncertainty g/kg Event 3272 maize 98 8	vial
ERM-BF423A	Genetically modified MIR604 Maize (0%) 转基因MIR604 Maize (0%) Certified value ¹ g/kg MIR604 maize < 0.9 1) No contamination was detected in the non-GM material when applying event-specific MIR604 real-time PCR with a detection limit of 0.8 g/kg. With a confidence level of 95 % the MIR604 maize mass fraction is below the certified value.	vial
ERM-BF423B	Genetically modified MIR604 Maize (0.1%) 转基因MIR604 Maize (0.1%) Certified value g/kg Uncertainty g/kg MIR604 maize 1.0 -0.3; +1.0	vial
ERM-BF423C	Genetically modified MIR604 Maize (1%) 转基因MIR604 Maize (1%) Certified value g/kg Uncertainty g/kg MIR604 maize 9.8 -0.9; +1.3	vial
ERM-BF423D	Genetically modified MIR604 Maize (10%) 转基因MIR604 Maize (10%) Certified value g/kg Uncertainty g/kg MIR604 maize 98.5 -2.6; +2.9	vial
ERM-BF424A	Genetically modified 59122 Maize (0%) 转基因59122 Maize (0%) Certified value ¹ g/kg 59122 maize < 1.2 1) No contamination was detected in the non-GM material when applying event-specific 59122 real-time PCR with a detection limit of 1.0 g/kg. With a confidence level of 95 % the 59122 maize mass fraction is below the certified limit value. The certified value is traceable to the SI.	vial
ERM-BF424B	Genetically modified 59122 Maize (0.1%) 转基因59122 Maize (0.1%) Certified value g/kg Uncertainty g/kg 59122 maize 1.0 -0.2; +1.2	vial
ERM-BF424C	Genetically modified 59122 Maize (1%) 转基因59122 Maize (1%) Certified value g/kg Uncertainty g/kg 59122 maize 9.9 -0.8; +1.4	vial
ERM-BF424D	Genetically modified 59122 Maize (10%) 转基因59122 Maize (10%) Certified value g/kg Uncertainty g/kg 59122 maize 98.7 -5.8; +5.9	vial
ERM-BF422A	Genetically modified 281-24-236 x 3006-210-23 Cotton seed (0%) 转基因281-24-236 x 3006-210-23棉花种子 (0%) Certified value ¹ g/kg 281-24-236 x 3006-210-23 Cotton seed < 0.5 1) No contamination was detected in the non-GM material when applying real-time PCR methods targeting the 281-24-236 sequence and the 3006-210-23 sequence. The certified value is traceable to the SI.	vial
ERM-BF422B	Genetically modified 281-24-236 x 3006-210-23 Cotton seed (100%) 转基因281-24-236 x 3006-210-23棉花种子 (100%) Certified value g/kg 281-24-236 x 3006-210-23 Cotton seed > 979	vial
ERM-BF422C	Genetically modified 281-24-236 x 3006-210-23 Cotton seed (1%) 转基因281-24-236 x 3006-210-23棉花种子 (1%) Certified value g/kg Uncertainty g/kg 281-24-236 x 3006-210-23 Cotton seed 10.0 1.7	vial
ERM-BF422D	Genetically modified 281-24-236 x 3006-210-23 Cotton seed (10%) 转基因281-24-236 x 3006-210-23棉花种子 (10%) Certified value g/kg Uncertainty g/kg 281-24-236 x 3006-210-23 Cotton seed 100 16	vial

Food Matrix Reference materials

Code	Product	Unit
ERM-BF421A	EH92-527-1 Potato (blank) EH92-527-1 马铃薯 (blank) ERM-BF421a is a blank material composed of milled, dried powder from solely "non-EH92-527-1" potatoes. The number fraction is calculated by counting the number of non-modified potatoes and the number of EH92-527-1 potatoes and expressing the result as a percentage. Each individual potato was tested for the presence of the genetic modification by staining a small potato piece for the presence of amylose (Lugol's test). The genetic identification is based on event-specific real-time PCR for EH92-527-1. Certified property Certified value Number fraction of EH92-527-1 potatoes / total 0¹ number of potatoes [%] Genetic identity Potato without the EH92-527-1 event² ¹ Based on the experimental confirmation of the absence of the EH92-527-1 genetic modification in every individual potato used for the processing through colorimetric analysis of the amylose content in a surface slice. ² The uncertainty is considered zero. Based on event-specific real-time PCR analysis. No uncertainty is applicable.	vial
ERM-BF421B	EH92-527-1 Potato (level 1) EH92-527-1 马铃薯 (level 1) ERM-BF421b is composed of milled, dried powder from purely EH92-527-1 potatoes and its genetic identity has been confirmed by nucleotide sequencing. The number fraction is calculated by counting the number of non-modified potatoes and the number of EH92-527-1 potatoes and expressing the result as a percentage. Each individual potato was tested for the presence of the genetic modification by staining a small potato piece for the presence of amylose (Lugol's test). The genetic identification is based on event-specific real-time PCR for EH92-527-1 and nucleotide sequencing around the junction region between the transgene insert and the potato genome. Certified property Certified value Number fraction of EH92-527-1 potatoes / total 100¹ number of potatoes [%] Genetic identity EH92-527-1 potato² ¹ .Based on the experimental confirmation of the presence of the EH92-527-1 genetic modification in every individual potato used for the processing through colorimetric analysis of the amylose content in a cut tuber surface slice. The uncertainty is considered zero. ² Based on event-specific real-time PCR analysis and nucleotide sequence analysis of the junction region between the transgene DNA insert and the potato genome in EH92-527-1. No uncertainty is applicable.	vial
ERM-BF419A	Genetically modified H7-1 Sugar Beet (blank) 转基因H7-1甜菜 (blank) ERM-BF419a is available in glass bottles containing approximately 1 g of sugar beet powder closed under argon atmosphere. This reference material has been produced from non-modified sugar beet roots delivered by KWS (Einbeck, DE). According to Commission Regulation (EC) No 65/2004 the event H7-1 sugar beet corresponds to the unique identifier KM-000H71-4. The certified H7-1 mass fraction is based on the mass fraction of non-modified sugar beet roots used for the processing of the CRM. All sugar beet roots used in the processing were individually tested by ELISA and event-specific rt-PCR. Certified property Certified value¹ H7-1 sugar beet 0 g/kg 1) No contamination was detected in the non-GM material when applying event-specific H7-1 real-time PCR and ELISA targeting the 5-enolpyruvylshikimate-3-phosphate synthase protein on each individual sugar beet root used for processing. The certified value is traceable to the SI.	vial
ERM-BF419B	Genetically modified H7-1 Sugar Beet (level 1) 转基因H7-1甜菜 (level 1) ERM-BF419b is available in glass bottles containing approximately 1 g of sugar beet powder closed under argon atmosphere. This reference material has been produced from genetically modified sugar beet roots delivered by KWS (Einbeck, DE). According to Commission Regulation (EC) No 65/2004 the event H7-1 sugar beet corresponds to the unique identifier KM-000H71-4. The certified H7-1 mass fraction is based on the mass fraction of modified sugar beet roots used for the processing of the CRM. All sugar beet roots used in the processing were individually tested by ELISA and event-specific rt-PCR. Certified property Certified value¹ H7-1 sugar beet 1000 g/kg 1) No contamination was detected in the non-GM material when applying event-specific H7-1 real-time PCR and ELISA targeting the 5-enolpyruvylshikimate-3-phosphate synthase protein on each individual sugar beet root used for processing. The certified value is traceable to the SI.	vial
ERM-BF427A	Maize seed powder - 98140 Maize (blank) 玉米籽粉-98140 Maize (blank) Certified value g/kg 98140 Maize < 0.4	vial
ERM-BF427B	Maize seed powder - 98140 Maize (0.5%) 玉米籽粉-98140 Maize (0.5%) Certified value g/kg Uncertainty g/kg 98140 Maize 5 0.6	vial

Food Matrix Reference materials

Code	Product	Unit
ERM-BF427C	Maize seed powder - 98140 Maize (2%)玉米籽粉-98140 Maize (2%) Certified value g/kg Uncertainty g/kg 98140 Maize 20 0.8	vial
ERM-BF427D	Maize seed powder - 98140 Maize (10%)玉米籽粉-98140 Maize (10%) Certified value g/kg Uncertainty g/kg 98140 Maize 100 4	vial
ERM-BF428A	Cotton seed powder - GHB119 Cotton (blank) 棉花籽粉- GHB119 Cotton (blank) Certified value g/kg GHB119 cotton < 0.2	vial
ERM-BF428B	Cotton seed powder - GHB119 Cotton (1%)棉花籽粉- GHB119 Cotton (1%) Certified value g/kg Uncertainty g/kg GHB119 cotton 10 4	vial
ERM-BF428C	Cotton seed powder - GHB119 Cotton (10%)棉花籽粉- GHB119 Cotton (10%) Certified value g/kg Uncertainty g/kg GHB119 cotton 100 11	vial
ERM-BF429A	Cotton seed powder - T304-40 Cotton (blank) 棉花籽粉- T304-40 Cotton (blank) Certified value g/kg T304-40 cotton < 0.4	vial
ERM-BF429B	Cotton seed powder - T304-40 Cotton (1%)棉花籽粉- T304-40 Cotton (1%) Certified value g/kg Uncertainty g/kg T304-40 cotton 10 1.3	vial
ERM-BF429C	Cotton seed powder - T304-40 Cotton (10%)棉花籽粉- T304-40 Cotton (10%) Certified value g/kg Uncertainty g/kg T304-40 cotton 100 11	vial

Food Matrix Reference materials

水果蔬菜和植物油

编号	描述	规格
ERM-BC084	番茄酱-重金属残留	50 g
LGC7111	土豆粉-二氧化硫	110 g
LGC7162	草莓叶-微量元素	20 g
ERM-BC516	苹果-膳食纤维	25 g
BCR-431	抱子甘蓝-维生素	20 g
ERM-BC515	胡萝卜-膳食纤维	25 g
IC-CS-CR-2	胡萝卜粉-微量元素 (control sample)	20 g
IRMM-801	可可油-甘油三酯 (TG)	Amp
BCR-400	陶瓷红 (番茄酱色素)	unit
BCR-383	四季豆-主要营养元素	100 g
ERM-BC514	四季豆-膳食纤维	25 g
BCR-485	混合蔬菜-微生物	25 g
ERM-BC517	全脂大豆-膳食纤维	25 g
BCR-162R	大豆玉米调和油-脂肪酸	5.5 g
IC-INCT-SBF-4	大豆粉-微量元素	50 g
ERM-AD413	Plasmid DNA fragments of MON 810 玉米	vial
BCR-679	白菜-微量元素	15 g
BCR-401R	花生酱(blank)-黄曲霉毒素	100 g
BCR-385R	花生酱(high)-黄曲霉毒素	100 g
BCR-262R	脱脂花生粕粉 (blank) -黄曲霉毒素 B1	100 g
BCR-263R	脱脂花生粕粉-黄曲霉毒素 B1,B2,G1	100 g
BCR-264	脱脂花生粕粉 (high level) -黄曲霉毒素 B1	150 g
IC-INCT-TL-1	茶叶-微量元素	50 g
IC-INCT-MPH-2	波兰混合调味草 (Mixed Polish herbs) -微量元素	50 g
IC-INCT-CS-M-1	蘑菇 (Suillus bovinus) -微量元素	25 g
BCR-459	椰子油-多环芳烃 (blank)	45 g
BCR-537	塑料薄膜 A-橄榄油中总迁移	film
BCR-538	塑料薄膜 B-橄榄油中总迁移	film
BCR-539	塑料薄膜 C-橄榄油中总迁移	film
BCR-593	塑料薄膜 E	film

*详细参数参见表后数据

Code	Product	Unit
Fruit and vegetables		
ERM-BC084	Tomato paste - Contaminant metals 番茄酱-重金属残留	50 g
	Certified values	
	Cd ... 0.112 mg/kg Pb0.316 mg/kg Sn 225 mg/kg	
LGC7111	Potato powder - Sulfur dioxide 土豆粉-二氧化硫	110 g
	Assessed value	
	Total sulfur dioxide 212 ± 27 mg/kg	
ERM-BC402	Potato powder – Iodine 土豆粉-碘	110 g
	Certified value	
	Iodine 1.86 mg/kg	

Food Matrix Reference materials

Code	Product	Unit																																										
LGC7162	Strawberry leaves - Trace elements 草莓叶-微量元素 The raw material was collected from a private farm in the Czech Republic. The mixture was cut and jet milled to pass a 250 μ m nylon sieve. The resulting powder was homogenised, separated in 20 g portions and placed in 60 mL bottles. Certified Values <table><tr><td>Ca</td><td>1.53 g/100 g</td><td>Ba</td><td>1.07 mg/kg</td><td>Mo</td><td>0.32 mg/kg</td></tr><tr><td>Mg</td><td>0.377 g/100 g</td><td>Cd</td><td>0.17 mg/kg</td><td>Hg</td><td>0.027 mg/kg</td></tr><tr><td>N</td><td>2.01 g/100 g</td><td>Co</td><td>0.47 mg/kg</td><td>Ni</td><td>2.6 mg/kg</td></tr><tr><td>P</td><td>0.260 g/100 g</td><td>Cr</td><td>2.15 mg/kg</td><td>Sr</td><td>64 mg/kg</td></tr><tr><td>K</td><td>1.96 g/100 g</td><td>Fe</td><td>8.18 mg/kg</td><td>Zn</td><td>24 mg/kg</td></tr><tr><td>S</td><td>0.174 g/100 g</td><td>Pb</td><td>1.8 mg/kg</td><td></td><td></td></tr><tr><td>As</td><td>0.28 mg/kg</td><td>Mn</td><td>171 mg/kg</td><td></td><td></td></tr></table>	Ca	1.53 g/100 g	Ba	1.07 mg/kg	Mo	0.32 mg/kg	Mg	0.377 g/100 g	Cd	0.17 mg/kg	Hg	0.027 mg/kg	N	2.01 g/100 g	Co	0.47 mg/kg	Ni	2.6 mg/kg	P	0.260 g/100 g	Cr	2.15 mg/kg	Sr	64 mg/kg	K	1.96 g/100 g	Fe	8.18 mg/kg	Zn	24 mg/kg	S	0.174 g/100 g	Pb	1.8 mg/kg			As	0.28 mg/kg	Mn	171 mg/kg			20 g
Ca	1.53 g/100 g	Ba	1.07 mg/kg	Mo	0.32 mg/kg																																							
Mg	0.377 g/100 g	Cd	0.17 mg/kg	Hg	0.027 mg/kg																																							
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S	0.174 g/100 g	Pb	1.8 mg/kg																																									
As	0.28 mg/kg	Mn	171 mg/kg																																									
ERM-BC516	Apple - Dietary fibre 苹果-膳食纤维 Certified using five different methods of dietary fibre analysis Certified values <table><tr><td>AOAC 1990</td><td>16.46 g/100 g</td><td>AOAC 1992 MES-TRIS</td><td>14.9 g/100 g</td></tr><tr><td>Englyst (GC)</td><td>13.7 g/100 g</td><td>Englyst (colorimetry)</td><td>13.4 g/100 g</td></tr><tr><td>Uppsala</td><td>16.2 g/100g</td><td></td><td></td></tr></table>	AOAC 1990	16.46 g/100 g	AOAC 1992 MES-TRIS	14.9 g/100 g	Englyst (GC)	13.7 g/100 g	Englyst (colorimetry)	13.4 g/100 g	Uppsala	16.2 g/100g			25 g																														
AOAC 1990	16.46 g/100 g	AOAC 1992 MES-TRIS	14.9 g/100 g																																									
Englyst (GC)	13.7 g/100 g	Englyst (colorimetry)	13.4 g/100 g																																									
Uppsala	16.2 g/100g																																											
BCR-431	Brussels sprout – Vitamins 抱子甘蓝-维生素 Certified values <table><tr><td>Vitamin C (total ascorbate)</td><td>4830 mg/kg</td></tr><tr><td>Niacin</td><td>43 mg/kg</td></tr></table>	Vitamin C (total ascorbate)	4830 mg/kg	Niacin	43 mg/kg	20 g																																						
Vitamin C (total ascorbate)	4830 mg/kg																																											
Niacin	43 mg/kg																																											
ERM-BC515	Carrot - Dietary fibre 胡萝卜-膳食纤维 Certified using five different methods of dietary fibre analysis Certified values <table><tr><td>AOAC 1990</td><td>31.1 g/100 g</td><td>AOAC 1992 MES-TRIS</td><td>29.5 g/100 g</td></tr><tr><td>Englyst (GC)</td><td>27.1 g/100 g</td><td>Englyst (colorimetry)</td><td>25.2 g/100 g</td></tr><tr><td>Uppsala</td><td>29.8 g/100 g</td><td></td><td></td></tr></table>	AOAC 1990	31.1 g/100 g	AOAC 1992 MES-TRIS	29.5 g/100 g	Englyst (GC)	27.1 g/100 g	Englyst (colorimetry)	25.2 g/100 g	Uppsala	29.8 g/100 g			25 g																														
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Englyst (GC)	27.1 g/100 g	Englyst (colorimetry)	25.2 g/100 g																																									
Uppsala	29.8 g/100 g																																											
IC-CS-CR-2	Carrot root powder - Trace elements (control sample) 胡萝卜粉-微量元素 (control sample) Prepared from carrot roots collected in a non-contaminated rural area of central Poland. Reference values <table><tr><td>As</td><td>0.050 mg/kg</td><td>Hg</td><td>0.0043 mg/kg</td><td>Zn</td><td>21.79 mg/kg</td></tr><tr><td>Cd</td><td>0.196 mg/kg</td><td>Pb</td><td>0.579 mg/kg</td><td></td><td></td></tr></table>	As	0.050 mg/kg	Hg	0.0043 mg/kg	Zn	21.79 mg/kg	Cd	0.196 mg/kg	Pb	0.579 mg/kg			20 g																														
As	0.050 mg/kg	Hg	0.0043 mg/kg	Zn	21.79 mg/kg																																							
Cd	0.196 mg/kg	Pb	0.579 mg/kg																																									
IRMM-801	Cocoa butter - Triglyceride (TG) 可可油-甘油三酯 (TG) Certified values <table><tr><th>Triglyceride</th><th>Relative mass fraction g TG/100 g total TG</th><th>Uncertainty g TG/100 g total TG</th></tr><tr><td>1,3-Dipalmitoyl-2-oleyl-glycero</td><td>18.14</td><td>0.26</td></tr><tr><td>1-Palmitoyl-2-oleoyl-3-stearoyl-glycerol</td><td>44.68</td><td>0.30</td></tr><tr><td>1,2-Dioleoyl-3-palmitoyl-glycerol</td><td>2.26</td><td>0.16</td></tr><tr><td>1,3-Distearoyl-2-oleoyl-glycerol</td><td>31.63</td><td>0.29</td></tr><tr><td>1,2-Dioleoyl-3-stearoyl-glycerol</td><td>3.29</td><td>0.17</td></tr></table>	Triglyceride	Relative mass fraction g TG/100 g total TG	Uncertainty g TG/100 g total TG	1,3-Dipalmitoyl-2-oleyl-glycero	18.14	0.26	1-Palmitoyl-2-oleoyl-3-stearoyl-glycerol	44.68	0.30	1,2-Dioleoyl-3-palmitoyl-glycerol	2.26	0.16	1,3-Distearoyl-2-oleoyl-glycerol	31.63	0.29	1,2-Dioleoyl-3-stearoyl-glycerol	3.29	0.17	Amp.																								
Triglyceride	Relative mass fraction g TG/100 g total TG	Uncertainty g TG/100 g total TG																																										
1,3-Dipalmitoyl-2-oleyl-glycero	18.14	0.26																																										
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1,3-Distearoyl-2-oleoyl-glycerol	31.63	0.29																																										
1,2-Dioleoyl-3-stearoyl-glycerol	3.29	0.17																																										
BCR-400	Red ceramic tile (Tomato paste colour) 陶瓷红 (番茄酱色素) 100 mm x 100 mm A ceramic tile the colour of which is defined by Hunter L, a and b values. Each tile is individually certified. The tile is intended for the purpose of calibration and does not represent a standard tomato paste colour.	unit																																										
BCR-383	Haricots verts (beans) - Major nutrients 四季豆-主要营养元素 Certified values <table><tr><td>N(Kjeldahl)</td><td>1.1 g/100 g</td><td>Ca</td><td>2.9 g/100 g</td></tr><tr><td>Dietary fibre (AOAC 1985/1988)</td><td>11.9 g/100 g</td><td>K</td><td>7.8 g/100 g</td></tr><tr><td>Ash at 550 $\square$ C</td><td>2.4 g/100g</td><td>Na</td><td>0.08 g/100 g</td></tr></table> Indicative values for glucose, fructose, sucrose, starch and sugars, dietary fibre (Englyst)	N(Kjeldahl)	1.1 g/100 g	Ca	2.9 g/100 g	Dietary fibre (AOAC 1985/1988)	11.9 g/100 g	K	7.8 g/100 g	Ash at 550 $\square$ C	2.4 g/100g	Na	0.08 g/100 g	100 g																														
N(Kjeldahl)	1.1 g/100 g	Ca	2.9 g/100 g																																									
Dietary fibre (AOAC 1985/1988)	11.9 g/100 g	K	7.8 g/100 g																																									
Ash at 550 $\square$ C	2.4 g/100g	Na	0.08 g/100 g																																									
ERM-BC514	Haricots beans - Dietary fibre 四季豆-膳食纤维 Certified using five different methods of dietary fibre analysis Certified values <table><tr><td>AOAC 1990</td><td>25.6 g/100 g</td><td>AOAC 1992 MES-TRIS</td><td>25.9 g/100 g</td></tr><tr><td>Englyst (GC)</td><td>19.8 g/100 g</td><td>Englyst (colorimetry)</td><td>20.1 g/100 g</td></tr><tr><td>Uppsala</td><td>23.7 g/100 g</td><td></td><td></td></tr></table>	AOAC 1990	25.6 g/100 g	AOAC 1992 MES-TRIS	25.9 g/100 g	Englyst (GC)	19.8 g/100 g	Englyst (colorimetry)	20.1 g/100 g	Uppsala	23.7 g/100 g			25 g																														
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Englyst (GC)	19.8 g/100 g	Englyst (colorimetry)	20.1 g/100 g																																									
Uppsala	23.7 g/100 g																																											
BCR-485	Mixed vegetables – Vitamins 混合蔬菜-微生物 Certified values <table><tr><td>B₁ (thiamin)</td><td>3.07 mg/kg</td><td>trans-$\square$ -Carotene</td><td>10.5 mg/kg</td><td>total-$\square$ -Carotene</td><td>25.6 mg/kg</td></tr><tr><td>B₆ (total pyridoxine)</td><td>4.8 mg/kg</td><td>trans-$\square$ -Carotene</td><td>23.7 mg/kg</td><td>Lutein</td><td>12.5 mg/kg</td></tr><tr><td>Folate (total)</td><td>3.15 mg/kg</td><td>total-$\square$ -Carotene</td><td>9.8 mg/kg</td><td>Lutein+Zeaxanthin</td><td>22.3 mg/kg</td></tr></table>	B ₁ (thiamin)	3.07 mg/kg	trans- $\square$ -Carotene	10.5 mg/kg	total- $\square$ -Carotene	25.6 mg/kg	B ₆ (total pyridoxine)	4.8 mg/kg	trans- $\square$ -Carotene	23.7 mg/kg	Lutein	12.5 mg/kg	Folate (total)	3.15 mg/kg	total- $\square$ -Carotene	9.8 mg/kg	Lutein+Zeaxanthin	22.3 mg/kg	25 g																								
B ₁ (thiamin)	3.07 mg/kg	trans- $\square$ -Carotene	10.5 mg/kg	total- $\square$ -Carotene	25.6 mg/kg																																							
B ₆ (total pyridoxine)	4.8 mg/kg	trans- $\square$ -Carotene	23.7 mg/kg	Lutein	12.5 mg/kg																																							
Folate (total)	3.15 mg/kg	total- $\square$ -Carotene	9.8 mg/kg	Lutein+Zeaxanthin	22.3 mg/kg																																							

Food Matrix Reference materials

Code	Product	Unit
ERM-BC517	Full fat soya - Dietary fibre 全脂大豆-膳食纤维 Certified using five different methods of dietary fibre analysis Certified values AOAC 1990 12.6 g/100 g AOAC 1992 MES-TRIS 12.4 g/100 g Englyst (GC) 11.9 g/100 g Englyst (colorimetry) 12.3 g/100 g Uppsala 12.8 g/100 g	25 g
BCR-162R	Soya-maize oil blend - Fatty acids 大豆玉米调和油-脂肪酸 Certified values Fatty acid Relative Mass Fraction in g FAME / 100 g total FAME 16:0 (n-Hexadecanoic acid) 10.74 ± 0.16 18:0 (n-Octadecanoic acid) 2.82 ± 0.04 9c-18:1 (n-Octadecenoic acid) 25.4 ± 0.4 9c,12c-18:2 (n-Octadecadienoic acid) 54.13 ± 0.25 9c,12c,15c-18:3 (n-Octadecatienoic acid) 3.35 ± 0.05	5.5 g
IC-INCT-SBF-4	Soya bean flour - Trace elements 大豆粉-微量元素 Certified values Al 45.5 ± 3.7 mg/kg Cu 14.30 ± 0.46 mg/kg P 6555 ± 335 mg/kg B 39.3 ± 4.0 mg/kg Fe 90.8 ± 4.0 mg/kg Rb 31.7 ± 1.7 mg/kg Ba 7.30 ± 0.23 mg/kg K 2,423 ± 0.083 wt% S 4245 ± 471 mg/kg Br 2.40 ± 0.17 mg/kg La 19.1 ± 2.4 mg/kg Sr 9.32 ± 0.46 mg/kg Ca 2467 ± 170 mg/kg Mg 3005 ± 82 mg/kg Th 7.08 ± 0.82 ng/kg Cl 64.5 ± 4.7 mg/kg Mn 32.3 ± 1.1 mg/kg Zn 52.3 ± 1.3 mg/kg Indicative values for Cd, Cr, Hg, Na, Pb, Sc, SM, Ti, V	50 g
ERM-AD413	Plasmid DNA fragments of MON 810 maize Plasmid DNA fragments of MON 810 玉米 Certified value Uncertainty Fragment of 5' plant-P35S junction DNA / plasmid 1 negligible Fragment of hmg DNA / plasmid 1 negligible	vial
BCR-679	White cabbage - Trace elements 白菜-微量元素 Certified values Cd 1.66 mg/kg Hg 6.3 µg/kg Sr 11.8 mg/kg Cu 2.89 mg/kg Mo 14.8 mg/kg Tl 3.0 µg/kg Fe 55.0 mg/kg Ni 27.0 mg/kg Zn 79.7 mg/kg Mn 13.3 mg/kg Sb 20.6 µg/kg	15 g
BCR-401R	Peanut butter (blank) – Aflatoxins 花生酱(blank)-黄曲霉毒素 Certified values Aflatoxin B1 <0.2 µg/kg Aflatoxin G1 <0.2 µg/kg Aflatoxin B2 <0.2 µg/kg Aflatoxin G2 <0.2 µg/kg	100 g
BCR-385R	Peanut butter (high level) – Aflatoxins 花生酱(high)-黄曲霉毒素 Certified values Aflatoxin B1 1.77 ± 0.30 µg/kg Aflatoxin G2 0.30 ± 0.12 µg/kg Aflatoxin B2 0.48 ± 0.08 µg/kg Sum of Aflatoxin B1, B2, G1, G2 3.5 ± 0.5 µg/kg Aflatoxin G1 0.90 ± 0.4 µg/kg	100 g
BCR-262R	Defatted peanut meal (blank) - Aflatoxin B1 脱脂花生粕粉 (blank) -黄曲霉毒素B1 Certified value Aflatoxin B1 <3 µg/kg	100 g
BCR-263R	Defatted peanut meal - Aflatoxin B1, B2 and G1 脱脂花生粕粉-黄曲霉毒素B1,B2,G1 Certified values Aflatoxin B1 17.1 ± 2.4 µg/kg Aflatoxin B2 3.0 ± 0.4 µg/kg Aflatoxin B3 3.0 ± 0.5 µg/kg	100 g
BCR-264	Defatted peanut meal (high level) - Aflatoxin B1 脱脂花生粕粉 (high level) -黄曲霉毒素B1 Certified value Aflatoxin B1 206 µg/kg	150 g

Food Matrix Reference materials

Code	Product	Unit																																																																								
IC-INCT-TL-1	Tea leaves - Trace elements 茶叶-微量元素 The material was prepared from black tea, usually packed in tea bags. Certified values <table><tr><td>Al</td><td>0.229 wt %</td><td>Eu</td><td>0.050 mg/kg</td><td>Sc</td><td>0.266 mg/kg</td></tr><tr><td>As</td><td>0.106 mg/kg</td><td>Hg</td><td>0.005 mg/kg</td><td>Sm</td><td>0.177 mg/kg</td></tr><tr><td>Ba</td><td>43.2 mg/kg</td><td>K</td><td>1.70 wt %</td><td>Sr</td><td>20.8 mg/kg</td></tr><tr><td>Br</td><td>12.3 mg/kg</td><td>La</td><td>1.00 mg/kg</td><td>Tb</td><td>0.026 mg/kg</td></tr><tr><td>Ca</td><td>0.582 wt %</td><td>Lu</td><td>0.016 mg/kg</td><td>Th</td><td>0.034 mg/kg</td></tr><tr><td>Cd</td><td>0.030 mg/kg</td><td>Mg</td><td>0.224 wt %</td><td>Ti</td><td>0.063 mg/kg</td></tr><tr><td>Cl</td><td>573 mg/kg</td><td>Mn</td><td>0.157 wt %</td><td>V</td><td>1.97 mg/kg</td></tr><tr><td>Co</td><td>0.387 mg/kg</td><td>Na</td><td>2.47 mg/kg</td><td>Yb</td><td>0.118 mg/kg</td></tr><tr><td>Cr</td><td>1.91 mg/kg</td><td>Ni</td><td>6.12 mg/kg</td><td>Zn</td><td>34.7 mg/kg</td></tr><tr><td>Cs</td><td>3.61 mg/kg</td><td>Pb</td><td>1.78 mg/kg</td><td></td><td></td></tr><tr><td>Cu</td><td>20.4 mg/kg</td><td>Rb</td><td>8.15 mg/kg</td><td></td><td></td></tr></table> Indicative values for B, Fe, Hf, Nd, P, Sb, Se, Ta, Ti and Tm	Al	0.229 wt %	Eu	0.050 mg/kg	Sc	0.266 mg/kg	As	0.106 mg/kg	Hg	0.005 mg/kg	Sm	0.177 mg/kg	Ba	43.2 mg/kg	K	1.70 wt %	Sr	20.8 mg/kg	Br	12.3 mg/kg	La	1.00 mg/kg	Tb	0.026 mg/kg	Ca	0.582 wt %	Lu	0.016 mg/kg	Th	0.034 mg/kg	Cd	0.030 mg/kg	Mg	0.224 wt %	Ti	0.063 mg/kg	Cl	573 mg/kg	Mn	0.157 wt %	V	1.97 mg/kg	Co	0.387 mg/kg	Na	2.47 mg/kg	Yb	0.118 mg/kg	Cr	1.91 mg/kg	Ni	6.12 mg/kg	Zn	34.7 mg/kg	Cs	3.61 mg/kg	Pb	1.78 mg/kg			Cu	20.4 mg/kg	Rb	8.15 mg/kg			50 g						
Al	0.229 wt %	Eu	0.050 mg/kg	Sc	0.266 mg/kg																																																																					
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Cu	20.4 mg/kg	Rb	8.15 mg/kg																																																																							
IC-INCT-MPH-2	Mixed Polish herbs - Trace elements 波兰混合调味草 (Mixed Polish herbs) -微量元素 Fresh herbs collected in a non contaminated rural area were collected, mixed and processed as for drug production by Herbapol S.A. Certified values <table><tr><td>Al</td><td>670 mg/kg</td><td>Eu</td><td>0.016 mg/kg</td><td>S</td><td>0.241 wt %</td></tr><tr><td>As</td><td>0.191 mg/kg</td><td>Hf</td><td>0.236 mg/kg</td><td>Sb</td><td>0.066 mg/kg</td></tr><tr><td>Ba</td><td>32.5 mg/kg</td><td>Hg</td><td>0.018 mg/kg</td><td>Sc</td><td>0.123 mg/kg</td></tr><tr><td>Br</td><td>7.71 mg/kg</td><td>K</td><td>1.91 wt %</td><td>Sm</td><td>0.094 mg/kg</td></tr><tr><td>Ca</td><td>1.08 wt %</td><td>La</td><td>0.571 mg/kg</td><td>Sr</td><td>37.6 mg/kg</td></tr><tr><td>Cd</td><td>0.199 mg/kg</td><td>Lu</td><td>0.009 mg/kg</td><td>Ta</td><td>0.019 mg/kg</td></tr><tr><td>Ce</td><td>1.12 mg/kg</td><td>Mg</td><td>0.292 wt %</td><td>Tb</td><td>0.014 mg/kg</td></tr><tr><td>Cl</td><td>0.284 wt %</td><td>Mn</td><td>1.91 mg/kg</td><td>Th</td><td>0.154 mg/kg</td></tr><tr><td>Co</td><td>0.210 mg/kg</td><td>Nd</td><td>0.457 mg/kg</td><td>V</td><td>0.952 mg/kg</td></tr><tr><td>Cr</td><td>1.69 mg/kg</td><td>Ni</td><td>1.57 mg/kg</td><td>Yb</td><td>0.053 mg/kg</td></tr><tr><td>Cs</td><td>0.076 mg/kg</td><td>Pb</td><td>2.16 mg/kg</td><td></td><td></td></tr><tr><td>Cu</td><td>7.77 mg/kg</td><td>Rb</td><td>1.07 mg/kg</td><td></td><td></td></tr></table> Indicative values for P, Fe, Mo, Na, Ti, U and W	Al	670 mg/kg	Eu	0.016 mg/kg	S	0.241 wt %	As	0.191 mg/kg	Hf	0.236 mg/kg	Sb	0.066 mg/kg	Ba	32.5 mg/kg	Hg	0.018 mg/kg	Sc	0.123 mg/kg	Br	7.71 mg/kg	K	1.91 wt %	Sm	0.094 mg/kg	Ca	1.08 wt %	La	0.571 mg/kg	Sr	37.6 mg/kg	Cd	0.199 mg/kg	Lu	0.009 mg/kg	Ta	0.019 mg/kg	Ce	1.12 mg/kg	Mg	0.292 wt %	Tb	0.014 mg/kg	Cl	0.284 wt %	Mn	1.91 mg/kg	Th	0.154 mg/kg	Co	0.210 mg/kg	Nd	0.457 mg/kg	V	0.952 mg/kg	Cr	1.69 mg/kg	Ni	1.57 mg/kg	Yb	0.053 mg/kg	Cs	0.076 mg/kg	Pb	2.16 mg/kg			Cu	7.77 mg/kg	Rb	1.07 mg/kg			50 g
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Cs	0.076 mg/kg	Pb	2.16 mg/kg																																																																							
Cu	7.77 mg/kg	Rb	1.07 mg/kg																																																																							
IC-INCT-CS-M-1	Mushrooms (Suillus bovinus) - Trace elements 蘑菇 (Suillus bovinus) -微量元素 Reference values <table><tr><td>As</td><td>0.344 ± 0.033 mg/kg</td><td>Hg</td><td>0.174 ± 0.018 mg/kg</td><td>Zn</td><td>60.94 ± 4.62 mg/kg</td></tr><tr><td>Cd</td><td>0.273 ± 0.093 mg/kg</td><td>Pb</td><td>0.476 ± 0.041 mg/kg</td><td></td><td></td></tr><tr><td>Cu</td><td>9.12 ± 0.83 mg/kg</td><td>Se</td><td>1.37 ± 0.11 mg/kg</td><td></td><td></td></tr></table>	As	0.344 ± 0.033 mg/kg	Hg	0.174 ± 0.018 mg/kg	Zn	60.94 ± 4.62 mg/kg	Cd	0.273 ± 0.093 mg/kg	Pb	0.476 ± 0.041 mg/kg			Cu	9.12 ± 0.83 mg/kg	Se	1.37 ± 0.11 mg/kg			25 g																																																						
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Cu	9.12 ± 0.83 mg/kg	Se	1.37 ± 0.11 mg/kg																																																																							
Vegetable oils																																																																										
BCR-459	Coconut oil - PAHs (blank) 椰子油-多环芳烃 (blank) <table><tr><td>Compound</td><td>Certified value µg/kg</td><td>Compound</td><td>Certified value µg/kg</td></tr><tr><td>Pyrene</td><td><0.9</td><td>Benzo(a)pyrene</td><td><0.3</td></tr><tr><td>Chrysene</td><td><0.6</td><td>Benzo(ghi)perylene</td><td><0.2</td></tr><tr><td>Benzo(k)fluoranthene</td><td><0.2</td><td>Indeno(1,2,3-cd)pyrene</td><td><0.2</td></tr></table>	Compound	Certified value µg/kg	Compound	Certified value µg/kg	Pyrene	<0.9	Benzo(a)pyrene	<0.3	Chrysene	<0.6	Benzo(ghi)perylene	<0.2	Benzo(k)fluoranthene	<0.2	Indeno(1,2,3-cd)pyrene	<0.2	45 g																																																								
Compound	Certified value µg/kg	Compound	Certified value µg/kg																																																																							
Pyrene	<0.9	Benzo(a)pyrene	<0.3																																																																							
Chrysene	<0.6	Benzo(ghi)perylene	<0.2																																																																							
Benzo(k)fluoranthene	<0.2	Indeno(1,2,3-cd)pyrene	<0.2																																																																							
BCR-537	Plastic film A - Overall migration in olive oil 塑料薄膜A-橄榄油中总迁移 Total immersion in olive oil for 10 days at 40°C Certified value: 8.3 mg/dm²	film																																																																								
BCR-538	Plastic film B - Overall migration in olive oil 塑料薄膜B-橄榄油中总迁移 Single sided cell in olive oil for 10 days at 40°C Certified value: 5.7 mg/dm²	film																																																																								
BCR-539	Plastic film C - Overall migration in olive oil 塑料薄膜C-橄榄油中总迁移 Pouch in olive oil for 10 days at 40°C Certified value: 6.1 mg/dm²	film																																																																								
BCR-593	Plastic film E 塑料薄膜E 120 cm x 20 cm Directive 90/128/EEC on plastic materials and articles intended for food contact regulates the limits of overall migration of specific substances into foodstuff. BCR-593 has been prepared to check the performance of the standard test procedure of film thickness, required for the evaluation of migration tendency. Certified values <table><tr><td>Fat soluble fluorescent additive (1,4-diphenyl-1,3-butadiene)</td><td>12.58 mg/kg</td></tr><tr><td>Film thickness</td><td>149.7 µm</td></tr></table>	Fat soluble fluorescent additive (1,4-diphenyl-1,3-butadiene)	12.58 mg/kg	Film thickness	149.7 µm	film																																																																				
Fat soluble fluorescent additive (1,4-diphenyl-1,3-butadiene)	12.58 mg/kg																																																																									
Film thickness	149.7 µm																																																																									

Food Matrix Reference materials

食物的真实性

编号	描述	规格
BCR-123A	乙醇- D/H 同位素测定	3 tubes
BCR-123B	乙醇- D/H 同位素测定	3 tubes
BCR-656	葡萄酒(96 % vol.)酒精-同位素比值	25 mL
BCR-657	糖 (葡萄糖) - Carbon -13 同位素比值	1 g
BCR-658	葡萄酒 (7% vol) - Oxygen-18 同位素比值	25 mL
BCR-659	葡萄酒 (12% vol) - Oxygen-18 同位素比值	25 mL
BCR-660	葡萄酒酒精-同位素比值	450 mL

*详细参数参见表后数据

Food Authenticity

Isotopic analyses are now official or standard methods in Europe and beyond for routine use in food authenticity testing. Thus, the use of nuclear magnetic resonance (NMR) spectrometry based on the site-specific natural isotope fractionation (SNIF) is prescribed for instance by EC Regulation No. 2676/90 on analytical methods for wine quality control. These methods are based on the measurement of stable isotope content (deuterium, ^{13}C , ^{18}O , etc.) of the products or of a specific component such as an ingredient or target molecule of the product. The determinations, carried out using NMR and/or Isotopic Ratio Mass Spectrometry (IRMS), provide information on the botanical and geographical origin of the food product. In order to enable a clear comparison of results the following certified reference materials have been developed.

Code	Product	Unit
	BCR-123A and BCR-123B	
	Quantitative analysis of deuterium in ethanol by NMR spectrometry based on the site-specific natural isotope fractionation (SNIF) is of considerable importance for the detection of wine enrichment. This technique is prescribed by EC regulation No. 2676/90 on analytical methods for wine quality control. BCR-123 consists of a set of 3 sealed NMR tubes containing forms of ethanol with a range of site specific isotopic ratios, to which tetramethylurea internal standard and the C_6F_6 lock substance have been added.	
BCR-123A	Ethanol - D/H isotopic determination 乙醇- D/H 同位素测定	3 tubes
BCR-123B	Ethanol - D/H isotopic determination 乙醇- D/H 同位素测定	3 tubes
BCR-656	Ethanol from wine (96 % vol.) - Isotope ratios 葡萄酒(96 % vol.)酒精-同位素比值	25 mL
	Certified values	
	Parameter Value Uncertainty	
	(D/H) _{II} by ^2H -NMR ... 102.84 ppm ... 0.20 ppm	
	(D/H) _{III} by ^2H -NMR ... 132.07 ppm ... 0.30 ppm	
	R by ^2H -NMR ... 2.570 ... 0.005	
	$\square$ ^{13}C VPDB by IRMS ... -2.691% ... 0.007%	
	Alcoholic grade to ... 4.61% ... 0.05% ⁽¹⁾	
	⁽¹⁾ in w/w volume	
BCR-657	Sugar (glucose) - Carbon-13 isotope ratio 糖 (葡萄糖) - Carbon -13同位素比值	1 g
	Certified value	
	Parameter Value Uncertainty	
	$\square$ ^{13}C VPDB by IRMS ... 1.076 ‰ ... 0.004‰	
BCR-658	Wine (7% vol) - Oxygen-18 isotope ratio 葡萄酒 (7% vol) - Oxygen-18同位素比值	25 mL
	Certified values	
	Parameter Value Uncertainty	
	$\square$ ^{18}O VSMMOW of water from wine by IRMS ... - 0.719‰ ... 0.004‰	
BCR-659	Wine (12% vol) - Oxygen-18 isotope ratio 葡萄酒 (12% vol) - Oxygen-18同位素比值	25 mL
	Certified values	
	Parameter Value Uncertainty	
	$\square$ ^{18}O VSMMOW of water from wine by IRMS ... - 0.718‰ ... ±0.002‰	

Food Matrix Reference materials

Code	Product	Unit
BCR-660	Wine ethanol - Isotope ratios 葡萄酒酒精-同位素比值	450 mL
Certified values		
Parameter		
Value		
Uncertainty		
(D/H) _I by ² H-NMR	102.90 ppm	0.16 ppm
(D/H) _{II} by ² H-NMR	131.35 ppm	0.23 ppm
R by ² H-NMR.....	2.567	0.005
□ ¹³ C _V PDB by IRMS	-2.672%	0.009%
(D/H) _w of water (IRMS)	148.68 ppm	0.14 ppm
Alcoholic grade to	11.96%	0.06% ⁽¹⁾
⁽¹⁾ in v/v %		

Food Matrix Reference materials

食物和饮料产品

编号	描述	规格
LGC7107	马德拉蛋糕-营养成分	160 g
LGC7105	米粉布丁-营养元素	200 g
LGC7017	甜食-各类糖成分	15 g
BCR-644	人工食品-游离糖、淀粉/葡萄糖	50 g
BCR-645	人工食品-游离糖、淀粉/葡萄糖	50 g
ERM-BD518	麦麸谷物早餐-膳食纤维	25 g
ERM-BD272	薄脆饼干-丙烯酰胺	68 g
ERM-BD273	烘焙面包-丙烯酰胺	vial
ERM-BD274	面包干-丙烯酰胺	48 g
ERM-BD272-274	ERM-BD272 和 ERM-BD274	set
BCR-191	全麦面包-微量元素	40 g
LGC7140	软饮料-色素	60 mL
ERM-BD011	橘子汁-糖度、折射率	3 mL
ERM-BD012	橘子汁-糖度、折射率	3 mL
ERM-BD013	橘子汁-糖度、折射率	3 mL
ERM-BD014	橘子汁-糖度、折射率	3 mL
ERM-BD015	橘子汁-糖度、折射率	3 mL
ERM-BA006	白兰地-酒精	50 mL
LGC5100	威士忌-酒精同类物	10 mL
LGC5001	葡萄酒-酒精（5%）	250 mL
LGC5003	葡萄酒-酒精（15%）	250 mL
LGC5004	Lager shandy-酒精	330 mL
ERM-BA005	淡啤酒-酒精	330 mL
BCR-651	啤酒-酒精（low level）	10 mL
BCR-652	啤酒-酒精（very low level）	10 mL
BCR-653	葡萄酒-酒精（low level）	10 mL
ERM-AC404	乙醇/水-5%乙醇	50 mL
ERM-AC405	乙醇/水-15%乙醇	50 mL
ERM-AC406	乙醇/水-40%乙醇	50 mL
ERM-AC407	乙醇/水-70%乙醇	50 mL

Code	Product	Unit																								
Processed food																										
LGC7107	Madeira cake – Proximates 马德拉蛋糕-营养成分 Lemon Madeira cakes were prepared by a UK food company. Each cake, weighing approx. 160 g, was sealed in a can. Assessed values <table><tr><td>Moisture</td><td>25.9 g/100 g</td><td>Total fat</td><td>13.4 g/100 g</td><td>Sucrose</td><td>28.1 g/100 g</td></tr><tr><td>Nitrogen</td><td>0.66 g/100 g</td><td>Ash</td><td>1.76 g/100 g</td><td>Lactose ...</td><td>0.9 g/100 g</td></tr></table> Indicative value for starch content	Moisture	25.9 g/100 g	Total fat	13.4 g/100 g	Sucrose	28.1 g/100 g	Nitrogen	0.66 g/100 g	Ash	1.76 g/100 g	Lactose ...	0.9 g/100 g	160 g												
Moisture	25.9 g/100 g	Total fat	13.4 g/100 g	Sucrose	28.1 g/100 g																					
Nitrogen	0.66 g/100 g	Ash	1.76 g/100 g	Lactose ...	0.9 g/100 g																					
LGC7105	Rice pudding - Proximates and elements 米粉布丁-营养元素 This reference material is a rice pudding dessert, sealed in retort pouches in 200g portions. Assessed values <table><tr><td>Moisture</td><td>71.3 g/100 g</td><td>Sucrose</td><td>7.2 g/100 g</td><td>Mn</td><td>0.7 mg/kg</td></tr><tr><td>N</td><td>0.17 g/100 g</td><td>Ca</td><td>7.8 mg/kg</td><td>Na</td><td>344 mg/kg</td></tr><tr><td>Total fat</td><td>8.4 g/100 g</td><td>K</td><td>5.58 mg/kg</td><td>P</td><td>346 mg/kg</td></tr><tr><td>Ash</td><td>0.22 g/100 g</td><td>Mg</td><td>3.0 mg/kg</td><td>Zn</td><td>1.5 mg/kg</td></tr></table>	Moisture	71.3 g/100 g	Sucrose	7.2 g/100 g	Mn	0.7 mg/kg	N	0.17 g/100 g	Ca	7.8 mg/kg	Na	344 mg/kg	Total fat	8.4 g/100 g	K	5.58 mg/kg	P	346 mg/kg	Ash	0.22 g/100 g	Mg	3.0 mg/kg	Zn	1.5 mg/kg	200 g
Moisture	71.3 g/100 g	Sucrose	7.2 g/100 g	Mn	0.7 mg/kg																					
N	0.17 g/100 g	Ca	7.8 mg/kg	Na	344 mg/kg																					
Total fat	8.4 g/100 g	K	5.58 mg/kg	P	346 mg/kg																					
Ash	0.22 g/100 g	Mg	3.0 mg/kg	Zn	1.5 mg/kg																					

Food Matrix Reference materials

Code	Product	Unit
LGC7017	Sugar confectionery – Sugars 甜食-各类糖成分 A commercial supply of sugar confectionery, ground and supplied as 15g units contained in 30ml amber glass bottle with tamper evident caps. Assessed values Glucose 9.7 g/100 g Sucrose 5 2.6 g/100 g Fructose 2.3 g/100 g Maltose 4 .2 g/100 g	15 g
BCR-644	Artificial foodstuff - Free sugars and starch/glucose 人工食品-游离糖、淀粉/葡萄糖 Sugar Certified value Uncertainty Mass fraction on dry mass basis (g/100 g) (g/100 g) Fructose 16.2 1.1 Sacrose 10.81 0.25 Lactose 15.85 0.29 Starch/glucose 35.1 1.2	50 g
BCR-645	Artificial foodstuff - Free sugars and starch/glucose 人工食品-游离糖、淀粉/葡萄糖 Sugar Certified value Uncertainty Mass fraction on dry mass basis (g/100 g) (g/100 g) Sacrose 26.2 0.8 Lactose 27.8 0.6 Starch/glucose 25.2 0.9	50 g
ERM-BD518	Bran breakfast cereal - Dietary fibre 麦麸谷物早餐-膳食纤维 Certified using five different methods of dietary fibre analysis Certified values AOAC 1990 30.2 g/100 g AOAC 1992 MES-TRIS 30.5 g/100 g Englyst (GC) 24.1 g/100 g Englyst (colorimetry) 25.0 g/100 g Uppsala 27.6 g/100 g	25 g
ERM-BD272	Crispbread – Acrylamide 薄脆饼干-丙烯酰胺 Certified value Acrylamide 0.98 ± 0.09 mg/kg	68 g
ERM-BD273	Toasted bread – Acrylamide 烘焙面包-丙烯酰胺 The matrix material ERM-BD273, consists of 30 g of toasted bread powder of particle size smaller than 500 µm, stored in amber glass bottles under inert atmosphere and stored at a temperature of - 20 °C. Certified value Acrylamide ... 425 ng/g	vial
ERM-BD274	Rusk – Acrylamide 面包干-丙烯酰胺 Certified value Acrylamide ... 47 ± 7 µg/kg	48 g
ERM-BD272-274	Crispbread - Acrylamide; Rusk – Acrylamide ERM-BD272和ERM-BD274 Set of ERM-BD272 and ERM-BD274	set
BCR-191	Brown bread - Trace elements 全麦面包-微量元素 Certified values Cd 28.4 µg/kg Fe 4 0.7 mg/kg Pb 187 µg/kg Cu 2.6 mg/kg Mn 2 0.3 mg/kg Zn 19.5 mg/kg Indicative values for As,Ca, Cl, Cr, Hg, K, Mg, Na, Ni, P, Se	40 g
Drinks		
LGC7140	Soft drink – Colours 软饮料-色素 Known weights of three food colours were added to a diluted solution of commercial soft drink concentrate. Certified values Ponceau 4R (E124) 18.7 mg/L Tartrazine (E102) 29.9 mg/L Sunset yellow (E110) 19.6 mg/L	60 mL
ERM-BD011	Orange juice 橘子汁-糖度、折射率 This certified reference material is intended for use in the development, validation or quality control of analytical methods for the determination of degrees Brix or Refractive Index of sugar solutions and food extracts. Certified values Degrees Brix ... 1.26 Refractive index 1.3348	3 mL
ERM-BD012	Orange juice 橘子汁-糖度、折射率 This certified reference material is intended for use in the development, validation or quality control of analytical methods for the determination of degrees Brix or Refractive Index of sugar solutions and food extracts. Certified values Degrees Brix ... 12.72 Refractive index 1.3521	3 mL

Food Matrix Reference materials

Code	Product	Unit												
ERM-BD013	Orange juice橘子汁-糖度、折射率 This certified reference material is intended for use in the development, validation or quality control of analytical methods for the determination of degrees Brix or Refractive Index of sugar solutions and food extracts. Certified values Degrees Brix ... 22.07 Refractive index 1.3673	3 mL												
ERM-BD014	Orange juice橘子汁-糖度、折射率 This certified reference material is intended for use in the development, validation or quality control of analytical methods for the determination of degrees Brix or Refractive Index of sugar solutions and food extracts. Certified values Degrees Brix ... 55.55 Refractive index 1.4320	3 mL												
ERM-BD015	Orange juice橘子汁-糖度、折射率 This certified reference material is intended for use in the development, validation or quality control of analytical methods for the determination of degrees Brix or Refractive Index of sugar solutions and food extracts. Certified values Degrees Brix 64.73 Refractive index 1.4529 For refractive index standards see the listing of physical standards later in this catalogue. LGC provides two proficiency testing schemes for the soft drinks industry - see section “About proficiency testing (PT)” of this catalogue for further details.	3 mL												
Alcoholic beverage														
ERM-BA006	Brandy – Alcohol 白兰地-酒精 European Reference Material ERM-BA006 is a commercial brandy available in 50mL portions contained in amber glass vials fitted with 20mm bromo-butyl stoppers and crimp caps. Certified values Apparent alcoholic strength 37.83 % alcohol by volume, ABV Actual alcoholic strength ... 40.12 % alcohol by volume, ABV Apparent density in air of the obscured spirit 950.38 kg/m³	50 mL												
LGC5100	Whisky – Congeners 威士忌-酒精同类物 Whisky sourced from a commercial source is available in 10mL unit in amber glass vials using sealed septa with crimped caps. Certified values <table><tr><td>Methanol</td><td>8.2 g/100 L</td><td>2-Methylbutan-1-ol</td><td>19.6 g/100 L</td></tr><tr><td>Propan-1-ol ...</td><td>67.4 g/100 L</td><td>3-Methylbutan-1-ol</td><td>51.4 g/100 L</td></tr><tr><td>2-Methylpropan-1-ol ...</td><td>64.9 g/100 L</td><td>2+3-Methylbutan-1-ol ...</td><td>70.1g/100 L</td></tr></table> Indicative values for acetaldehyde, butan-1-ol, furfural, ethyl acetate LGC5001 and LGC5003 LGC5001 and LGC5003 are wine certified reference materials obtained from a commercial source supplied in 250mL units. They are certified for alcoholic strengths ranging from 5% -15%. The alcoholic strength was determined from the density of the distillate by reference to the laboratory alcohol tables issued by United Kingdom HM Customs and Excise (ref. RDC80/267).	Methanol	8.2 g/100 L	2-Methylbutan-1-ol	19.6 g/100 L	Propan-1-ol ...	67.4 g/100 L	3-Methylbutan-1-ol	51.4 g/100 L	2-Methylpropan-1-ol ...	64.9 g/100 L	2+3-Methylbutan-1-ol ...	70.1g/100 L	10 mL
Methanol	8.2 g/100 L	2-Methylbutan-1-ol	19.6 g/100 L											
Propan-1-ol ...	67.4 g/100 L	3-Methylbutan-1-ol	51.4 g/100 L											
2-Methylpropan-1-ol ...	64.9 g/100 L	2+3-Methylbutan-1-ol ...	70.1g/100 L											
LGC5001	Wine - Alcohol (5%) 葡萄酒-酒精（5%） Certified value Alcohol 5.04 mL/100 mL (at 20°C)	250 mL												
LGC5003	Wine - Alcohol (15 %) 葡萄酒-酒精（15%） Certified value Alcohol14.66 % (at 20°C)	250 mL												
LGC5004	Lager shandy – Alcohol Lager shandy-酒精 This certified reference material for lager shandy is supplied in 150mL units and sealed in aluminium cans. Certified value Alcohol 1.02 mL/100 mL (at 20°C)	330 mL												
ERM-BA005	Lager – Alcohol 淡啤酒-酒精 Alcohol 5.07 mL/100 mL (at 20°C) LGC provides three proficiency testing schemes for the alcoholic beverage industry; BAPS (analysis of beer), MAPS (analysis of malted and unmalted barley) and DAPS (analysis of alcoholic beverages other than beer). See section “About proficiency testing (PT)” of this catalogue for further details.	330 mL												

Food Matrix Reference materials

Code	Product	Unit
BCR-651	Beer - Alcohol (low level) 啤酒-酒精 (low level) Certified value Ethanol ... 0.505 % (v/v)	10 mL
BCR-652	Beer - Alcohol (very low level) 啤酒-酒精 (very low level) Certified value Ethanol ... 0.051 % (v/v)	10 mL
BCR-653	Wine - Alcohol (low level) 葡萄酒-酒精 (low level) Certified value Ethanol ... 0.539 % (v/v)	10 mL
ERM-AC404 - ERM-AC407	European Reference Material ERM-AC404 - ERM-AC407 are Ethanol/ Water certified reference materials supplied in 50mL units in glass bottles and sealed with crimp cap. They are certified for alcoholic strength ranging from 5% - 70%.	
ERM-AC404	Ethanol/water - 5% Ethanol 乙醇/水-5%乙醇 Certified value Ethanol ... 4.96 mL/100 mL at 20°C Density ... 990.05 kg/m ³ at 20°C	50 mL
ERM-AC405	Ethanol/water - 15% Ethanol 乙醇/水-15%乙醇 Certified value Ethanol ... 14.99 mL/100mL at 20°C Density ... 977.94 kg/m ³ at 20°C	50 mL
ERM-AC406	Ethanol/water - 40% Ethanol 乙醇/水-40%乙醇 Certified value Ethanol ... 40.04 mL/100 mL at 20°C Density ... 946.91 kg/m ³ at 20°C	50 mL
ERM-AC407	Ethanol/water - 70% Ethanol 乙醇/水-70%乙醇 Certified value Ethanol ... 69.98 mL/100mL at 20°C Density ... 884.55 kg/m ³ at 20°C ABV: Alcohol by Volume	50 mL

Food Matrix Reference materials

Food supplements

IRMM-311 Genomic DNA of *Bacillus licheniformis* DSM 5749 in agarose inserts for Pulsed Field Gel Electrophoresis (PFGE) vial

The intended use of this material is the taxonomic identification of the authorised probiotic feed additive *Bacillus licheniformis* DSM 5749 by pulsed field gel electrophoresis (PFGE). The material is supplied in a vial containing one agarose insert of undigested genomic DNA of *Bacillus licheniformis* DSM 5749. Certified values and uncertainties are provided for *Sfi*I digested DNA fragments in the size interval 50 kb - 90 kb and requires the use of a specified analytical procedure.

SfiI digested DNA fragments in the Band no size interval 50 kb - 90 kb	Fragment length	
	Certified value [kb]	Uncertainty [kb]
1	89.6	4.7
2	80.9	2.5
3	75.3	2.7
4	72.2	3.5
5	66.9	1.9
6	64.6	2.9
7	60.3	1.3
8	56.5	1.3
9	53.9	1.3
10	50.6	1.3

IRMM-312 Genomic DNA of *Bacillus subtilis* DSM 5750 in agarose inserts for Pulsed Field Gel Electrophoresis (PFGE) vial

The intended use of this material is the taxonomic identification of the authorised probiotic feed additive *Bacillus subtilis* DSM 5750 by pulsed field gel electrophoresis (PFGE). The material is supplied in a vial containing one agarose insert of undigested genomic DNA of *Bacillus subtilis* DSM 5750. Certified values and uncertainties are provided for *Sfi*I digested DNA fragments in the size interval 15 kb - 97 kb and requires the use of a specified analytical procedure.

SfiI digested DNA fragments in the size interval 15 kb - 97 kb	Band no	Fragment length	
		Certified value [kb]	Uncertainty [kb]
	1	89.2	0.9
	2	81.4	0.8
	3	77.7	0.6
	4	62.5	1.8
	5	59.5	2.1
	6	44.0	2.4
	7	29.2	2.0
	8	23.6	1.3
	9	18.6	1.3

Food Matrix Reference materials

动物饲料

编号	描述	规格
LGC7173	家禽饲料-营养元素	45 g
ERM-BE376	复合饲料-黄曲霉毒素	2 x 75 g
BCR-115	动物饲料-近似值分析	30 g
BCR-375	复合饲料-黄曲霉毒素 B1(blank)	50 g
BCR-708	合成奶牛饲料-基本元素	40 g
BCR-709	合成猪饲料-基本元素	40 g
BDS-BRM-01	饲料- DR CALUX® TEQ (Low)	100 g
BDS-BRM-02	饲料- DR CALUX® TEQ (Middle)	100 g
BDS-BRM-03	饲料- DR CALUX® TEQ (High)	100 g
BDS-BRM-01-03	BDS-BRM-01,02,03 (一组)	kit

*详细参数参见表后数据

Code	Product	Unit
LGC7173	Poultry feed - Proximates and elements (batch 003) 家禽饲料-营养元素 Assessed values using Statutory Methods* Moisture 12.3 0.3 g/100 g Oil 4.1 0.7 g/100 g Ash 6.4 0.6 g/100 g Assessed values using data derived from a variety of methods Moisture 12.0 0.3 g/100 g Ca 1.44 0.15 g/100 g K 0.74 0.06 g/100 g Nitrogen 2.56 0.19 g/100 g Chloride™ 0.28 0.06 g/100 g Fe 145 31 mg/kg Oil 4.1 0.7 g/100 g Mg 0.16 0.02 g/100 g Mn 131 19 mg/kg Ash 6.5 0.6 g/100 g P 0.63 0.03 g/100 g Zn 91 11 mg/kg Crude fibre 4.1 0.7 g/100 g Na 0.17 0.05 g/100 g *These values have been assigned using only data derived from laboratories reporting analysis according to "EEC method of analysis of the official control of feedingstuffs", as indicated into UK law in "The Feeding Stuffs (Sampling and Analysis) Regulations 1999".	45 g
ERM-BE376	Compound feedingstuff – Aflatoxins 复合饲料-黄曲霉毒素 ERM-BE376 is a compound feeding stuff mixed from contaminated copra, wheat, barley, soya, maize and a mineral / vitamin premix. Certified values Aflatoxin B1 12.9 ±1.8 µg/kg Aflatoxin B20.68 ± 0.10 µg/kg Aflatoxin G1.... .. 5.2 ± 0.8 µg/kg	2 x 75 g
BCR-115	Animal feed – Pesticides 动物饲料-近似值分析 Compound Certified value Uncertainty mg/kg mg/kg HCB 0.0194 0.0014 beta-HCH 0.023 0.003 gamma-HCH 0.0218 0.0020 Heptachlor 0.019 0.0015 gamma-Chlordane 0.048 0.005 Dieldrin 0.018 0.003 alpha-Endosulfan 0.046 0.004 Endrin 0.046 0.006 2,4'-DDT 0.046 0.005 4,4'-DDE 0.047 0.004	30 g
BCR-375	Compound feed - Aflatoxin B1 (blank) 复合饲料-黄曲霉毒素B1(blank) Certified value Aflatoxin B1 <1 µg/kg	50 g
BCR-708	Synthetic dairy feed - Proximates and elements 合成奶牛饲料-基本元素 Property Certified value Uncertainty Crude protein 240 g/kg 12 g/kg Crude oils and fats 65 g/kg 8 g/kg Crude fibre 93 g/kg 14 g/kg Crude ash..... 50 g/kg 3 g/kg Ca..... 4.8 g/kg 0.5 g/kg Cu..... 37 mg/kg 4 mg/kg Mg 1.47 g/kg 0.22 g/kg P 4.7 g/kg 0.4 g/kg	40 g

Food Matrix Reference materials

Code	Product	Unit
BCR-709	Synthetic feed for growing pigs feed - Proximates and elements 合成猪饲料-基本元素	40 g
	Property	Certified value
	Crude protein	199 g/kg
	Crude oils and fats	51 g/kg
	Crude fibre	56 g/kg
	Crude ash	42 g/kg
	Ca	1.05 g/kg
	Cu	173 mg/kg
	Mg	1.89 g/kg
	P	5.4 g/kg
	Uncertainty	5 g/kg
		14 g/kg
		12 g/kg
		4 g/kg
		0.16 g/kg
		25 mg/kg
		0.30 g/kg
		0.7 g/kg
BDS-BRM-01	Feedingstuff - DR CALUX® TEQ (Low) 饲料- DR CALUX® TEQ (Low)	100 g
	DR CALUX® TEQ	
	Expected value^ (n=16)	
	DR CALUX® TEQ per gram product	0.68 pg
	HRGC/MS PCDD/PCDF TEQ^C (n=1)	
	PCDD/PCDF TEQ per gram product	0.12 pg
	HRGC/MS PCB TEQ^C (n=1)	
	PCB TEQ per gram product	0.25 pg
	HRGC/MS PCDD/PCDF/PCB TEQ^C (n=1)	
	PCDD/PCDF/PCB TEQ per gram	0.37 pg
	^ The average value is based in the robust mean as mentioned in the ISO57328.	
	^B Uncertainty is based on the robust standard deviation as mentioned in the ISO57328.	
	^C Based on quantified congeners and WHO-TEF's	
BDS-BRM-02	Feedingstuff - DR CALUX® TEQ (Middle) 饲料- DR CALUX® TEQ (Middle)	100 g
	DR CALUX® TEQ	
	Expected value^ (n=16)	
	DR CALUX® TEQ per gram product	0.90 pg
	HRGC/MS PCDD/PCDF TEQ^C (n=1)	
	PCDD/PCDF TEQ per gram product	0.31 pg
	HRGC/MS PCB TEQ^C (n=1)	
	PCB TEQ per gram product	0.43 pg
	HRGC/MS PCDD/PCDF/PCB TEQ^C (n=1)	
	PCDD/PCDF/PCB TEQ per gram... ..	0.74 pg
	^ The average value is based in the robust mean as mentioned in the ISO57328.	
	^B Uncertainty is based on the robust standard deviation as mentioned in the ISO57328.	
	^C Based on quantified congeners and WHO-TEF's	
BDS-BRM-03	Feedingstuff - DR CALUX® TEQ (High) 饲料- DR CALUX® TEQ (High)	100 g
	DR CALUX® TEQ	
	Expected value^ (n=16)	
	DR CALUX® TEQ per gram product	1.4 pg
	HRGC/MS PCDD/PCDF TEQ^C (n=1)	
	PCDD/PCDF TEQ per gram product	0.71 pg
	HRGC/MS PCB TEQ^C (n=1)	
	PCB TEQ per gram product	0.83 pg
	HRGC/MS PCDD/PCDF/PCB TEQ^C (n=1)	
	PCDD/PCDF/PCB TEQ per gram... ..	1.5 pg
	^ The average value is based in the robust mean as mentioned in the ISO57328.	
	^B Uncertainty is based on the robust standard deviation as mentioned in the ISO57328.	
	^C Based on quantified congeners and WHO-TEF's	
BDS-BRM-01-03	Feedingstuff - DR CALUX® (Kit) 饲料 - DR CALUX® (Kit)	kit
	Each Kit consists of one unit of	
	BDS-BRM-01 Feedingstuff - CALUX® TEQ (Low)	
	BDS-BRM-02 Feedingstuff - CALUX®	
	TEQ (Middle)	
	BDS-BRM-03 Feedingstuff - CALUX®	
	TEQ (High)	

Food Matrix Reference materials

微生物标准样品

编号	描述	规格
IRMM-447	单核细胞增生李斯特菌 gDNA	vial
IRMM-448	空肠弯曲杆菌 gDNA (NCTC 11351)	vial
IRMM-449	大肠埃希菌 gDNA	vial
BCR-506	奶粉中肠球菌 (WR63)	10 caps
BCR-507R	奶粉中鼠伤寒沙门氏菌	10 caps
BCR-527	奶粉中阴沟肠杆菌(WR3)	10 caps
BCR-528	奶粉中蜡样芽胞杆菌	10 caps.
BCR-594	奶粉中大肠杆菌	10 caps
BCR-595	奶粉中李斯特菌	10 caps.
IRMM-352	Escherichia coli 0157 in material spheres (Bioball® format)	vial
IRMM-354	Candida albicans (NCPF 3179) in material pheres (Bioball® format)	vial
IRMM-355	Enterococcus faecalis in material spheres (Bioball® format)	vial

*详细参数参见表后数据

Purified genomic DNA (gDNA)

The stable genomic DNA (gDNA) standards (IRMM-447, 448, 449) have been developed for the verification and detection of food-borne pathogens by diagnostic polymerase chain reaction (PCR) within the European FOOD-PCR project. These standards support harmonisation and validation of different PCR methods by their use as taxonomic controls in PCR reactions.

Code	Product	Unit
IRMM-447	Genomic DNA of <i>Listeria monocytogenes</i> 单核细胞增生李斯特菌gDNA Freeze dried genomic DNA Certified identity: genomic DNA <i>Listeria monocytogenes</i> (strain 4B, NCTC 11994) Indicative value for the mass of genomic DNA per vial Dry ice shipment required	vial
IRMM-448	Genomic DNA <i>Campylobacter jejuni</i> (NCTC 11351) 空肠弯曲杆菌gDNA (NCTC 11351) Indicative value Mass of genomic DNA per vial ... 71 ng Dry ice shipment required	vial
IRMM-449	Genomic DNA of <i>Escherichia coli</i> 大肠埃希菌gDNA Freeze dried genomic DNA Certified identity: genomic DNA <i>Escherichia coli</i> O157, strain EDL 933 Indicative value for the mass of genomic DNA per vial Dry ice shipment required	vial

Certified materials for microbiological properties

Code	Product	Unit												
BCR-506	<i>Enterococcus faecium</i> (WR63) in milk powder 奶粉中肠球菌 (WR63) BCR-506 consists of 0.26 g milk powder (with a tolerance interval of $\pm 5\%$ m/m), artificially contaminated with <i>Enterococcus faecium</i> (WR63), contained in a gelatin capsule. The entire capsule should be reconstituted according to the instruction for use. <table> <tr> <td>Colony forming particles of <i>Enterococcus faecium</i> (WR63) according to the procedure</td><td>Number of colony forming particles (cfp) Certified value [cfp/capsule]</td><td>Uncertainty interval [cfp/capsule]</td></tr> <tr> <td>ISO 7899/2, 1984 KFA ...</td><td>76</td><td>71 - 81</td></tr> <tr> <td>ISO 7899/2, 1984 m-EA ...</td><td>72</td><td>63 - 82</td></tr> <tr> <td>ISO 6222, 1988 YA ...</td><td>109</td><td>102 - 117</td></tr> </table> Dry ice shipment required	Colony forming particles of <i>Enterococcus faecium</i> (WR63) according to the procedure	Number of colony forming particles (cfp) Certified value [cfp/capsule]	Uncertainty interval [cfp/capsule]	ISO 7899/2, 1984 KFA ...	76	71 - 81	ISO 7899/2, 1984 m-EA ...	72	63 - 82	ISO 6222, 1988 YA ...	109	102 - 117	10 caps.
Colony forming particles of <i>Enterococcus faecium</i> (WR63) according to the procedure	Number of colony forming particles (cfp) Certified value [cfp/capsule]	Uncertainty interval [cfp/capsule]												
ISO 7899/2, 1984 KFA ...	76	71 - 81												
ISO 7899/2, 1984 m-EA ...	72	63 - 82												
ISO 6222, 1988 YA ...	109	102 - 117												

Food Matrix Reference materials

Code	Product	Unit																		
BCR-507R	Salmonella typhimurium in milk powder 奶粉中鼠伤寒沙门氏菌 BCR-507R consists of 0.29 g artificially contaminated spray dried milk contained in a blue/white gelatine capsule. The strain used for the contamination is <i>Salmonella typhimurium</i>. <table> <tr> <td>Colony forming particles of <i>Salmonella typhimurium</i> according to the procedure</td><td>Number of colony forming particles (cfp) Certified value [cfp/capsule]</td><td>Uncertainty interval [cfp/capsule]</td></tr> <tr> <td>Enumeration procedure</td><td>5.0</td><td>4.5 - 5.4</td></tr> <tr> <td>Fraction of negative capsules of <i>Salmonella typhimurium</i> according to the procedure</td><td>Fraction of negative capsules Certified value [%]</td><td>Uncertainty interval [%]</td></tr> <tr> <td>Enumeration procedure</td><td>1.1</td><td>0 - 2.1</td></tr> <tr> <td>Presence/absence procedure</td><td>1.6</td><td>0 - 2.8</td></tr> </table> Dry ice shipment required	Colony forming particles of <i>Salmonella typhimurium</i> according to the procedure	Number of colony forming particles (cfp) Certified value [cfp/capsule]	Uncertainty interval [cfp/capsule]	Enumeration procedure	5.0	4.5 - 5.4	Fraction of negative capsules of <i>Salmonella typhimurium</i> according to the procedure	Fraction of negative capsules Certified value [%]	Uncertainty interval [%]	Enumeration procedure	1.1	0 - 2.1	Presence/absence procedure	1.6	0 - 2.8	10 caps.			
Colony forming particles of <i>Salmonella typhimurium</i> according to the procedure	Number of colony forming particles (cfp) Certified value [cfp/capsule]	Uncertainty interval [cfp/capsule]																		
Enumeration procedure	5.0	4.5 - 5.4																		
Fraction of negative capsules of <i>Salmonella typhimurium</i> according to the procedure	Fraction of negative capsules Certified value [%]	Uncertainty interval [%]																		
Enumeration procedure	1.1	0 - 2.1																		
Presence/absence procedure	1.6	0 - 2.8																		
BCR-527	Enterobacter cloacae (WR3) in milk powder 奶粉中阴沟肠杆菌(WR3) BCR-527 consists of 0.308 g milk powder, artificially contaminated with <i>Enterobacter cloacae</i> (WR3), contained in a gelatine capsule. <table> <tr> <td>Colony forming particles of <i>Enterobacter cloacae</i> (WR3) according to the procedure</td><td>Number of colony forming particles (cfp) Certified value [cfp/capsule]</td><td>Uncertainty interval [cfp/capsule]</td></tr> <tr> <td>ISO 9308-1, 1990 LSA</td><td>34</td><td>29 - 40</td></tr> </table> Dry ice shipment required	Colony forming particles of <i>Enterobacter cloacae</i> (WR3) according to the procedure	Number of colony forming particles (cfp) Certified value [cfp/capsule]	Uncertainty interval [cfp/capsule]	ISO 9308-1, 1990 LSA	34	29 - 40	10 caps.												
Colony forming particles of <i>Enterobacter cloacae</i> (WR3) according to the procedure	Number of colony forming particles (cfp) Certified value [cfp/capsule]	Uncertainty interval [cfp/capsule]																		
ISO 9308-1, 1990 LSA	34	29 - 40																		
BCR-528	Bacillus cereus in milk powder 奶粉中蜡样芽胞杆菌 BCR-528 consists of 0.317 g artificially contaminated with spray dried milk contained in an ochre/white gelatine capsule. The strain used for the contamination is <i>Bacillus cereus</i> (ATCC 9139). <table> <tr> <td>Colony forming particles of <i>Bacillus cereus</i> according to the procedure</td><td>Number of colony forming particles (cfp) Certified value [cfp/capsule]</td><td>Uncertainty interval [cfp/capsule]</td></tr> <tr> <td>MEYP (ISO 7932) after 24 h incubation</td><td>53.4</td><td>51.7 - 55.2</td></tr> <tr> <td>MEYP (ISO 7932) after 48 h incubation</td><td>53.7</td><td>52.1 - 55.4</td></tr> <tr> <td>PEMBA (L 00.00 - 25) after 24 h incubation</td><td>55.0</td><td>52.8 - 57.4</td></tr> <tr> <td>PEMBA (L 00.00 - 25) after 48 h incubation</td><td>55.8</td><td>53.6 - 58.0</td></tr> </table> Indicative value for colony forming particles of <i>Bacillus cereus</i> according to the procedure SBA (Analysis no 67) after 24 h incubation Dry ice shipment required	Colony forming particles of <i>Bacillus cereus</i> according to the procedure	Number of colony forming particles (cfp) Certified value [cfp/capsule]	Uncertainty interval [cfp/capsule]	MEYP (ISO 7932) after 24 h incubation	53.4	51.7 - 55.2	MEYP (ISO 7932) after 48 h incubation	53.7	52.1 - 55.4	PEMBA (L 00.00 - 25) after 24 h incubation	55.0	52.8 - 57.4	PEMBA (L 00.00 - 25) after 48 h incubation	55.8	53.6 - 58.0	10 caps.			
Colony forming particles of <i>Bacillus cereus</i> according to the procedure	Number of colony forming particles (cfp) Certified value [cfp/capsule]	Uncertainty interval [cfp/capsule]																		
MEYP (ISO 7932) after 24 h incubation	53.4	51.7 - 55.2																		
MEYP (ISO 7932) after 48 h incubation	53.7	52.1 - 55.4																		
PEMBA (L 00.00 - 25) after 24 h incubation	55.0	52.8 - 57.4																		
PEMBA (L 00.00 - 25) after 48 h incubation	55.8	53.6 - 58.0																		
BCR-594	Escherichia coli in milk powder 奶粉中大肠杆菌 BCR-594 consists of 0.28 g milk powder (with a mass tolerance of $\pm 5\%$), artificially contaminated with <i>Escherichia coli</i> (WR1), contained in a gelatine capsule. Number of colony forming particles (z) of <i>Escherichia coli</i> (WR1) in 1 mL of suspension of reconstituted artificially contaminated milk powder. <table> <tr> <th>Colony forming particles of <i>Escherichia coli</i> according to the procedure</th><th>Certified value</th><th>Uncertainty</th></tr> <tr> <td></td><td></td><td>Relevant below the certified value Relevant above the certified value</td></tr> <tr> <td>ISO 9308-1, 1990 T7A 30/37</td><td>56</td><td>8 10</td></tr> <tr> <td>ISO 9308-1, 1990 T7A 30/44</td><td>49</td><td>8 10</td></tr> <tr> <td>ISO 9380-1, 1990 LSA 30/37</td><td>40</td><td>7 8</td></tr> <tr> <td>ISO 9308-1, 1990 LSA 30/44</td><td>36</td><td>7 8</td></tr> </table> Dry ice shipment required	Colony forming particles of <i>Escherichia coli</i> according to the procedure	Certified value	Uncertainty			Relevant below the certified value Relevant above the certified value	ISO 9308-1, 1990 T7A 30/37	56	8 10	ISO 9308-1, 1990 T7A 30/44	49	8 10	ISO 9380-1, 1990 LSA 30/37	40	7 8	ISO 9308-1, 1990 LSA 30/44	36	7 8	10 caps.
Colony forming particles of <i>Escherichia coli</i> according to the procedure	Certified value	Uncertainty																		
		Relevant below the certified value Relevant above the certified value																		
ISO 9308-1, 1990 T7A 30/37	56	8 10																		
ISO 9308-1, 1990 T7A 30/44	49	8 10																		
ISO 9380-1, 1990 LSA 30/37	40	7 8																		
ISO 9308-1, 1990 LSA 30/44	36	7 8																		
BCR-595	Listeria monocytogenes in milk powder 奶粉中李斯特菌 BCR-595 consists of 0.34 g artificially contaminated spray dried milk contained in an orange/white gelatine capsule. The strain used for the contamination is <i>Listeria monocytogenes</i> (Scott A strain). <table> <tr> <td>Colony forming particles of <i>Listeria monocytogenes</i> according to the procedure</td><td>Number of colony forming particles (cfp) Certified value [cfp/capsule]</td><td>Uncertainty interval [cfp/capsule]</td></tr> <tr> <td>Enumeration procedure</td><td>7.2</td><td>6.8 - 7.6</td></tr> <tr> <td>Fraction of negative capsules of <i>Listeria monocytogenes</i> according to the procedure</td><td>Fraction of negative capsules Certified value [%]</td><td>Uncertainty interval [%]</td></tr> <tr> <td>Enumeration procedure</td><td>0.075</td><td>0.05 - 0.112</td></tr> <tr> <td>Presence/absence procedure according to IDF standard 143</td><td>1.2</td><td>0 - 2.3</td></tr> </table> Dry ice shipment required	Colony forming particles of <i>Listeria monocytogenes</i> according to the procedure	Number of colony forming particles (cfp) Certified value [cfp/capsule]	Uncertainty interval [cfp/capsule]	Enumeration procedure	7.2	6.8 - 7.6	Fraction of negative capsules of <i>Listeria monocytogenes</i> according to the procedure	Fraction of negative capsules Certified value [%]	Uncertainty interval [%]	Enumeration procedure	0.075	0.05 - 0.112	Presence/absence procedure according to IDF standard 143	1.2	0 - 2.3	10 caps.			
Colony forming particles of <i>Listeria monocytogenes</i> according to the procedure	Number of colony forming particles (cfp) Certified value [cfp/capsule]	Uncertainty interval [cfp/capsule]																		
Enumeration procedure	7.2	6.8 - 7.6																		
Fraction of negative capsules of <i>Listeria monocytogenes</i> according to the procedure	Fraction of negative capsules Certified value [%]	Uncertainty interval [%]																		
Enumeration procedure	0.075	0.05 - 0.112																		
Presence/absence procedure according to IDF standard 143	1.2	0 - 2.3																		

Food Matrix Reference materials

Code	Product	Unit																		
IRMM-351	Escherichia coli 0157 in material spheres (Biobal[®] format) Each vial contains one material sphere of Escherichia coli 0157 (NCTC 12900). Certified values cfu per material sphere on nutrient agar ... 4 ± 2 cfu cfu per material sphere on enterohemolysin agar ... 5 ± 2 cfu Recommendation: For application in presence/absence tests, analyse at least two vials of the CRM. Dry ice shipment required BioBall[®] - Trademark of BIOMERIEUX INDUSTRY	vial																		
IRMM-352	Salmonella enteritidis in material spheres (Biobal[®] format) Each vial contains one material sphere of Salmonella enteritidis (NCTC 12694). Certified values cfu per material sphere on nutrient agar ... 5 ± 2 cfu cfu per material sphere on xylose lysine deoxycholate agar ... 5 ± 2 cfu Recommendation: For application in presence/absence tests, analyse at least two vials of the CRM. Dry ice shipment required BioBall[®] - Trademark of BIOMERIEUX INDUSTRY	vial																		
IRMM-354	Candida albicans (NCPF 3179) in material spheres (Biobal[®] format) Each vial contains one material sphere of Candida albicans (NCPF 3179). IRMM-354 is intended to be used for the measurement of Candida albicans by colony counting on nutrient agar or OGYE agar according to ISO 7218 and ISO 13681 respectively. <table> <tr> <th colspan="3">Number of colony forming units (cfu)</th></tr> <tr> <th></th><th>Certified value [cfu]</th><th>Uncertainty [cfu]</th></tr> <tr> <td>cfu per material sphere on¹⁾ ...</td><td>917</td><td>168</td></tr> <tr> <td>nutrient agar (NA)</td><td></td><td></td></tr> <tr> <td>cfu per material sphere on ...</td><td>912</td><td>173</td></tr> <tr> <td>Oxytetracyclin-Glucose-YeastExtract agar (OGYE)²⁾</td><td></td><td></td></tr> </table> 1) as defined by the procedure according to ISO 7218 [1] 2) as defined by the procedure according to ISO 13681 [2] BioBall[®] - Trademark of BIOMERIEUX INDUSTRY	Number of colony forming units (cfu)				Certified value [cfu]	Uncertainty [cfu]	cfu per material sphere on ¹⁾ ...	917	168	nutrient agar (NA)			cfu per material sphere on ...	912	173	Oxytetracyclin-Glucose-YeastExtract agar (OGYE) ²⁾			vial
Number of colony forming units (cfu)																				
	Certified value [cfu]	Uncertainty [cfu]																		
cfu per material sphere on ¹⁾ ...	917	168																		
nutrient agar (NA)																				
cfu per material sphere on ...	912	173																		
Oxytetracyclin-Glucose-YeastExtract agar (OGYE) ²⁾																				
IRMM-355	Enterococcus faecalis in material spheres (Biobal[®] format) Each vial contains one material sphere of Enterococcus faecalis (CIP 106877). This CRM is intended to be used for the measurement of Enterococcus faecalis by colony counting on horse blood agar or Slanetz and Bartley agar according to ISO 7218 [1] and ISO 7899-2 [2] respectively. <table> <tr> <th colspan="3">Number of colony forming units (cfu)</th></tr> <tr> <th></th><th>Certified value [cfu]</th><th>Uncertainty [cfu]</th></tr> <tr> <td>cfu per material sphere on ...</td><td>917</td><td>168</td></tr> <tr> <td>horse blood agar¹⁾</td><td></td><td></td></tr> <tr> <td>cfu per material sphere on ...</td><td>912</td><td>173</td></tr> <tr> <td>Slanetz and Bartley agar²⁾</td><td></td><td></td></tr> </table> 1) as defined by the procedure according to ISO 7218 [1] 2) as defined by the procedure according to ISO 13681 [2] BioBall[®] - Trademark of BIOMERIEUX INDUSTRY	Number of colony forming units (cfu)				Certified value [cfu]	Uncertainty [cfu]	cfu per material sphere on ...	917	168	horse blood agar ¹⁾			cfu per material sphere on ...	912	173	Slanetz and Bartley agar ²⁾			vial
Number of colony forming units (cfu)																				
	Certified value [cfu]	Uncertainty [cfu]																		
cfu per material sphere on ...	917	168																		
horse blood agar ¹⁾																				
cfu per material sphere on ...	912	173																		
Slanetz and Bartley agar ²⁾																				

Food Matrix Reference materials

DR CALUX® TEQ reference materials

DR CALUX® TEQ reference materials

BioDetection Systems - DR CALUX® (Chemical Activated Luciferase gene eXpression) is a cell based screening technology which can be used as an alternative to instrumental chemical analysis, as described by the European Commission Directive EC/1883/2006 and EC/152/2009 ('screening methods should be used'). Instead of separating and measuring each individual dioxin and dioxin-like PCB, the DR CALUX® works by mimicking the toxic effect of dioxins/PCBs. A receptor cell which is highly specific to those dioxins/PCBs that exhibit toxicity is used in the test. And the DR CALUX® gives a luminescent signal which is a direct measure of the total TEQ value.

This DR CALUX® does not require extensive sample preparation or sophisticated instrumentation and is faster and significantly cheaper to use than conventional HRGC/HRMS. This system offers an attractive alternative screening method to give a result which can be readily checked against the EU regulated limits. By such a screening strategy, compliant samples (25% below the EU limits for food/feed) can be easily selected for no further instrumental analysis.

Code	Product	Unit
BDS-BRM-01	Feedingstuff - DR CALUX® TEQ (Low) 饲料- DR CALUX® TEQ (Low) DR CALUX® TEQ Expected value ^A (n=16) DR CALUX® TEQ per gram product 0.68 pg HRGC/MS PCDD/PCDF TEQ ^C (n=1) PCDD/PCDF TEQ per gram product 0.12 pg HRGC/MS PCB TEQ ^C (n=1) PCB TEQ per gram product 0.25 pg HRGC/MS PCDD/PCDF/PCB TEQ ^C (n=1) PCDD/PCDF/PCB TEQ per gram... .. 0.37 pg ^A The average value is based in the robust mean as mentioned in the ISO57328. ^B Uncertainty is based on the robust standard deviation as mentioned in the ISO57328. ^C Based on quantified congeners and WHO-TEF's	100 g
BDS-BRM-02	Feedingstuff - DR CALUX® TEQ (Middle) 饲料- DR CALUX® TEQ (Middle) DR CALUX® TEQ Expected value ^A (n=16) DR CALUX® TEQ per gram product 0.90 pg HRGC/MS PCDD/PCDF TEQ ^C (n=1) PCDD/PCDF TEQ per gram product 0.31 pg HRGC/MS PCB TEQ ^C (n=1) PCB TEQ per gram product 0.43 pg HRGC/MS PCDD/PCDF/PCB TEQ ^C (n=1) PCDD/PCDF/PCB TEQ per gram... .. 0.74 pg ^A The average value is based in the robust mean as mentioned in the ISO57328. ^B Uncertainty is based on the robust standard deviation as mentioned in the ISO57328. ^C Based on quantified congeners and WHO-TEF's	100 g
BDS-BRM-03	Feedingstuff - DR CALUX® TEQ (High) 饲料- DR CALUX® TEQ (High) DR CALUX® TEQ Expected value ^A (n=16) DR CALUX® TEQ per gram product 1.4 pg HRGC/MS PCDD/PCDF TEQ ^C (n=1) PCDD/PCDF TEQ per gram product 0.71 pg HRGC/MS PCB TEQ ^C (n=1) PCB TEQ per gram product 0.83 pg HRGC/MS PCDD/PCDF/PCB TEQ ^C (n=1) PCDD/PCDF/PCB TEQ per gram... .. 1.5 pg ^A The average value is based in the robust mean as mentioned in the ISO57328. ^B Uncertainty is based on the robust standard deviation as mentioned in the ISO57328. ^C Based on quantified congeners and WHO-TEF's	100 g
BDS-BRM-01-03	Feedingstuff - DR CALUX® (Kit) 饲料-DR CALUX® (Kit) Each Kit consists of one unit of	kit

Food Matrix Reference materials

BDS-BRM-01 Feedingstuff - CALUX® TEQ (Low)
 BDS-BRM-02 Feedingstuff - CALUX® TEQ (Middle)
 BDS-BRM-03 Feedingstuff - CALUX® TEQ (High)

Code	Product	Unit
BDS-BRM-04	Fishoil - DR CALUX® TEQ (Low) 鱼油- DR CALUX® TEQ (Low) DR CALUX® TEQ Expected value ^A (n=16) DR CALUX® TEQ per gram product 3.7 pg HRGC/MS PCDD/PCDF TEQ ^C (n=1) PCDD/PCDF TEQ per gram product 0.35 pg HRGC/MS PCB TEQ ^C (n=1) PCB TEQ per gram product 1.85 pg HRGC/MS PCDD/PCDF/PCB TEQ ^C (n=1) PCDD/PCDF/PCB TEQ per gram 2.2 pg ^A The average value is based in the robust mean as mentioned in the ISO57328. ^B Uncertainty is based on the robust standard deviation as mentioned in the ISO57328. ^C Based on quantified congeners and WHO-TEF's	100 g
BDS-BRM-05	Fishoil - DR CALUX® TEQ (Middle) 鱼油- DR CALUX® TEQ (Middle) DR CALUX® TEQ Expected value ^A (n=16) DR CALUX® TEQ per gram product 8.8 pg HRGC/MS PCDD/PCDF TEQ ^C (n=1) PCDD/PCDF TEQ per gram product 0.68 pg HRGC/MS PCB TEQ ^C (n=1) PCB TEQ per gram product 7.0 pg HRGC/MS PCDD/PCDF/PCB TEQ ^C (n=1) PCDD/PCDF/PCB TEQ per gram 7.7 pg ^A The average value is based in the robust mean as mentioned in the ISO57328. ^B Uncertainty is based on the robust standard deviation as mentioned in the ISO57328. ^C Based on quantified congeners and WHO-TEF's	100 g
BDS-BRM-06	Fishoil - DR CALUX® TEQ (High) 鱼油- DR CALUX® TEQ (High) DR CALUX® TEQ Expected value ^A (n=16) DR CALUX® TEQ per gram product 16 pg HRGC/MS PCDD/PCDF TEQ ^C (n=1) PCDD/PCDF TEQ per gram product 6.2 pg HRGC/MS PCB TEQ ^C (n=1) PCB TEQ per gram product 8.6 pg HRGC/MS PCDD/PCDF/PCB TEQ ^C (n=1) PCDD/PCDF/PCB TEQ per gram 14.8 pg ^A The average value is based in the robust mean as mentioned in the ISO57328. ^B Uncertainty is based on the robust standard deviation as mentioned in the ISO57328. ^C Based on quantified congeners and WHO-TEF's	100 g
BDS-BRM-04-06	Fishoil - DR CALUX® TEQ (Kit) 鱼油- DR CALUX® TEQ (Kit) Each Kit consists of one unit of BDS-BRM-04 Fishoil - CALUX® TEQ (Low) BDS-BRM-05 Fishoil - CALUX® TEQ (Middle) BDS-BRM-06 Fishoil - CALUX® TEQ (High)	kit