

Food Matrix Reference Materials





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This brochure provides a comprehensive list of food matrix reference materials from various manufacturers, sorted by matrix type and listing the analytes to make it quick and easy for you to find the material that is fit for your needs.

Matrix reference materials are important tools for an analytical laboratory to develop, validate, and verify the results of their analytical methods. While reference materials in neat or in solution formats are usually used for calibration or identification purposes of specific analytes, matrix materials take matrix effects too into account and can serve to account for the bias during sample workup and preparation. Matrix materials are characterised for their composition of specified major, minor, or trace chemical constituents. The material can be naturally contaminated, or the samples can be fortified by spiking the analytes of interest to a blank matrix.

The closer the nature of the used matrix material is to the tested samples, the better it can help to validate the results of a method.

Manufacturing of Food Matrix Reference Materials is a very laborious and time-consuming process. Most of the Food Matrix Materials currently available in the market are manufactured either by metrological institutes (like the National Institute of Standards and Technology (NIST) or the European Joint Research Center (JRC)) or by proficiency testing (PT) providers with access to a big set of analytical data from accredited labs.

Our offering of more than 200 food matrix materials includes products from NIST, JRC, METAS, FAPAS, Alpha Resources and Elemental Microanalysis.

This brochure aims to help you finding the best suited matrix material, but we are only listing the analytes, not the certification level and values. Please also note, that certification of materials as well as the range of certified analytes might be changing. Therefore we recommend to check the most current certificate which you can usually find linked at the corresponding product pages

[SigmaAldrich.com/foodmatrix](https://sigmaaldrich.com/foodmatrix)

NIST

Founded on March 3, 1901, the National Institute of Standards and Technology (NIST) in the United States is one of the oldest physical science laboratories globally. Its measurements support the smallest of technologies to the largest and most complex of human-made creations. NIST standards, also called standard reference materials (SRMs), are available for use in various areas such as industrial raw materials, clinical chemistry, environmental analysis, and food and agriculture. We are proud to be a Licensed Distributor of NIST SRMs.

[SigmaAldrich.com/nist](https://www.sigmaaldrich.com/nist)



Joint Research Center (JRC)

The Reference Material Unit of the JRC (Joint Research Center, a Directorate General of the European Commission) is situated in Geel, Belgium.

The JRC's mission is to support EU policies with independent evidence throughout the whole policy cycle. This involves the production of certified reference materials (pure and matrix materials) for environmental analysis, food analysis, clinical chemistry, industrial applications and physical properties. The JRC's CRMs are available under the ERM[®], EURM[®], IRMM[®] and BCR[®] brands.

The JRC's CRMs are produced in accordance with ISO 17034 and the JRC holds accreditation to ISO 17034 (reference materials production), ISO/IEC 17025 (testing) and ISO 17043 (proficiency testing).

[SigmaAldrich.com/jrc](https://www.sigmaaldrich.com/jrc)



Fapas[®]

Fapas[®] is a renowned provider of proficiency testing schemes for food analysis and is part of Fera, a center of excellence for interdisciplinary investigation and problem solving across plant and bee health, crop protection, sustainable agriculture, food and feed quality and chemical safety in the environment based in York (UK).

The Fapas[®] RMs are derived from materials used for proficiency testing schemes and undergo formal stability testing for both short-term and long-term applications. The products are delivered with an associated datasheet which lists the reference values and their expanded uncertainty U. The value of U is not a performance limit but is the uncertainty relating to the reference value. RMs therefore have a greater degree of trust in their values than, for example, quality control materials and can be used for method calibration purposes. Fapas[®] RMs are manufactured in accordance with the principles of ISO 17034.

[SigmaAldrich.com/fapas](https://www.sigmaaldrich.com/fapas)



Alpha Resources and Elemental Microanalysis

Elemental Microanalysis and Alpha Resources are experts in elemental combustion analyses (C, H, N, O, S) within the inorganic and organic markets. Each reference material is manufactured within an ISO9001 accredited company and all Certified Reference Materials (CRM) are produced under ISO17034 accreditation, utilising ISO17025 accredited labs. The determination of certified values for Carbon, Hydrogen, Nitrogen, Oxygen and Sulfur are with elemental analysers calibrated with materials from the National Institute of Standards and Technology (NIST) where applicable. The isotope values are traceable to primary isotopic certified reference materials issued by IAEA Vienna. All reference materials without ISO17034 certification have been produced and tested within a ISO9001 and ISO17025 laboratory.

[SigmaAldrich.com/alpharesources](https://www.sigmaaldrich.com/alpharesources)

[SigmaAldrich.com/elementalmicroanalysis](https://www.sigmaaldrich.com/elementalmicroanalysis)



METAS

The Federal Institute of Metrology METAS serves as the federal centre of competence for all issues related to measurement and for measuring equipment and procedures. It is the Swiss national metrology institute. As such, its mandate is to ensure the availability of measurement and testing facilities with the degree of accuracy needed to meet the requirements of the economy, research and administration. In collaboration with us in Buchs, METAS is developing certified reference materials. An example is the Whey Protein Matrix Material **WP-CBR001**, intended to be used for development, validation and performance control of analytical methods for the determination of toxic elements and polycyclic aromatic hydrocarbons (PAHs)



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Animal Feed Matrix Materials

Cat. No.	Description	Analytes listing	Manufacturer
FAP80738	Aflatoxins in animal feed	Biotoxins / Mycotoxins Aflatoxin B1, Aflatoxin B2, Aflatoxin G1, Aflatoxin G2, Aflatoxin (total)	Fapas®
BCR115	Animal Feed	Organic Pollutants HCB, β-HCH, γ-HCH, Heptachlor, γ-Chlordane, α-Endosulfan, Dieldrin, Endrin, p,p'-DDE	JRC
NIST1486	Bone meal	Elements Calcium (Ca), Iron (Fe), Lead (Pb), Magnesium (Mg), Phosphorous (P), Potassium (K), Strontium (Sr), Zinc (Zn)	NIST
BCR375	Compound feed (aflatoxin B1, blank)	Biotoxins / Mycotoxins Aflatoxin B1	JRC
ERMBE376	Compound feedingstuff (aflatoxins, high level)	Biotoxins / Mycotoxins Aflatoxin B1, Aflatoxin B2, Aflatoxin G1	JRC
ERMBE375	Compound feedingstuff (aflatoxins, very low level)	Biotoxins / Mycotoxins Aflatoxin B1, Aflatoxin B2, Aflatoxin G1, Aflatoxin G2	JRC
FAP83946	Fusarium toxins in animal feed	Biotoxins / Mycotoxins Deoxynivalenol (DON), Zearalenone (ZON), T-2, HT-2	Fapas®
FAP83947	OA in animal feed	Biotoxins / Mycotoxins Ochratoxin A	Fapas®
ERMCD281	Rye Grass	Elements Phosphorus (P), Antimony (Sb), Arsenic (As), Boron (B), Cadmium (Cd), Calcium (Ca), Chromium (Cr), Copper (Cu), Iron (Fe), Lead (Pb), Magnesium (Mg), Manganese (Mn), Mercury (Hg), Molybdenum (Mo), Nickel (Ni), Potassium (K), Selenium (Se), Silicon (Si), Sodium (Na), Sulfur (S), Tin (Sn), Zinc (Zn)	JRC

Beverages and Water Matrix Materials

Cat. No.	Description	Analytes listing	Manufacturer
FAP80591	Acrylamide in coffee	Organic Pollutants Acrylamide	Fapas®
BCR651	Beer (EtOH, low level)	Ethanol	JRC
BCR652	Beer (EtOH, very low level)	Ethanol	JRC
BCR480	Fresh water (nitrate, high level)	Nitrate (NO₃)	JRC
BCR479	Fresh water (nitrate, low level)	Nitrate (NO₃)	JRC
FAP80562	Metals in soft drink	Elements Arsenic (inorganic), Cadmium (Cd), Iron (Fe), Lead (Pb), Tin (Sn)	Fapas®
FAP80561	Metals in wine	Elements Cadmium (Cd), Copper (Cu), Lead (Pb)	Fapas®
FAP84207	OTA in coffee (processed)	Biotoxins / Mycotoxins Ochratoxin A	Fapas®
FAP80679	Soft drinks ingredients	Phytochemicals Benzoic acid, Caffeine Sweeteners Acesulfame-K, Saccharin	Fapas®
IRMM428	Water (PFASs)	Organic Pollutants Linear perfluorooctane sulfonate (L-PFOS), Perfluorobutane sulfonate (PFBS), Perfluoroheptanoic acid (PFHpA), Perfluorohexane sulfonate (PFHxS), Perfluorohexanoic acid (PFHxA), Perfluorononanoic acid, Perfluoropentanoic acid (PFPeA)	JRC
BCR653	Wine (EtOH, low level)	Ethanol	JRC



Botanicals Matrix Materials

Cat. No.	Description	Analytes listing	Manufacturer
NIST3247	Ginkgo biloba (Extract)	<p>Phytochemicals Bilobalide, Ginkgolide A, Ginkgolide B, Ginkgolide C, Ginkgolide J, Isorhamnetin, Kaempferol, Quercetin, Total Aglycones, Total Terpene Lactones</p> <p>Elements Arsenic (As), Cadmium (Cd), Lead (Pb)</p>	NIST
NIST3246	Ginkgo biloba (Leaves)	<p>Phytochemicals Bilobalide, Ginkgolide A, Ginkgolide B, Ginkgolide C, Ginkgolide J, Isorhamnetin, Kaempferol, Quercetin, Total Aglycones, Total Terpene Lactones</p> <p>Elements Cadmium (Cd), Lead (Pb), Mercury (Hg)</p>	NIST
NIST3248	Ginkgo-Containing Tablets	<p>Phytochemicals Bilobalide, Ginkgolide A, Ginkgolide B, Ginkgolide C, Ginkgolide J, Isorhamnetin, Kaempferol, Quercetin, Total Aglycones, Total Terpene Lactones</p> <p>Elements Arsenic (As), Cadmium (Cd), Lead (Pb), Mercury (Hg)</p>	NIST
NIST3255	Green Tea (Camellia sinensis) Extract	<p>Phytochemicals (-)-Epicatechin, (-)-Epicatechin gallate, (-)-Epigallocatechin, (-)-Epigallocatechin gallate, (-)-Epigallocatechin methylgallate, (-)-Gallocatechin, (-)-Gallocatechin gallate, (+)-Catechin, Caffeine, Gallic acid, L-Theanine, theobromine, Theophylline</p> <p>Elements Aluminum (Al), Arsenic (As), Copper (Cu), Iron (Fe), Lead (Pb), Manganese (Mn), Zinc (Zn)</p>	NIST
NIST3254	Green Tea (Camellia sinensis) Leaves	<p>Phytochemicals (-)-Epicatechin, (-)-Epicatechin gallate, (-)-Epigallocatechin, (-)-Epigallocatechin gallate, (-)-Gallocatechin, (-)-Gallocatechin gallate, (+)-Catechin, Caffeine, Gallic acid, L-Theanine, Theobromine</p> <p>Elements Aluminum (Al), Arsenic (As), Cadmium (Cd), Copper (Cu), Iron (Fe), Lead (Pb), Manganese (Mn), Mercury (Hg), Zinc (Zn)</p>	NIST

Cat. No.	Description	Analytes listing	Manufacturer
NIST3256	Green Tea-Containing Solid Oral Dosage Form	<p>Phytochemicals</p> <p>(-)-Epicatechin, (-)-Epicatechin gallate, (-)-Epigallocatechin, (-)-Epigallocatechin gallate, (-)-Gallocatechin, (-)-Gallocatechin gallate, (+)-Catechin, caffeine, Gallic acid, L-Theanine, theobromine, Theophylline</p> <p>Metals</p> <p>Arsenic (As), Cadmium (Cd), Lead (Pb), Mercury (Hg)</p>	NIST
NIST3251	Saw Palmetto (<i>Serenoa repens</i>) Extract	<p>Phytochemicals</p> <p>Campesterol, Cycloartenol, Lupeol, Stigmasterol, β-Sitosterol</p> <p>Vitamins</p> <p>9-Cis-β-carotene, Total β-carotene, Trans-β-carotene, γ-Tocopherol</p>	NIST
NIST3250	Saw Palmetto (<i>Serenoa repens</i>) Fruit	<p>Phytochemicals</p> <p>Campesterol, Stigmasterol, β-Sitosterol</p>	NIST
BCR402	White clover (trace elements)	<p>Elements</p> <p>Arsenic (As), Cobalt (Co), Molybdenum (Mo), Selenium (Se)</p>	JRC



Cereals, Bread, Rice and Maize Matrix Materials

Cat. No.	Description	Analytes listing	Manufacturer
FAP80659	Acrylamide in potato products	Organic Pollutants Acrylamide	Fapas®
FAP80868	Aflas in maize	Biotoxins / Mycotoxins Aflatoxin B1, Aflatoxin B2, Aflatoxin G1, Aflatoxin G2, Aflatoxin (total)	Fapas®
AR2027	Barley Flour	Elements Carbon, Hydrogen, Nitrogen and Sulfur	Alpha Resources
ERMBD518	Bran breakfast cereal (dietary fibre)	Dietary Fibre Dietary fibre according to AOAC 1990985.29, Dietary fibre according to AOAC 1992 MES-TRIS 991.43, Dietary fibre according to Englyst (by Colorimetry), Dietary fibre according to Englyst (by GC), Dietary fibre according to Uppsala 994.13	JRC
AR2017	Corn Gluten	Elements Carbon, Hydrogen, Nitrogen and Sulfur	Alpha Resources
AR2025	Corn Meal	Elements Carbon, Hydrogen, Nitrogen and Sulfur	Alpha Resources
FAP80926	Fumonisin in cereals	Biotoxins / Mycotoxins Fumonisin B1, Fumonisin B2	Fapas®
FAP80916	Fusarium toxins in cereals	Biotoxins / Mycotoxins Deoxynivalenol (DON), Zearalenone (ZON), T-2, HT-2	Fapas®
ERMBC717	Maize (low level zon)	Biotoxins / Mycotoxins Deoxynivalenol, Nivalenol (NIV), Zearalenone (ZON)	JRC
ERMBC716	Maize (very low level ZON)	Biotoxins / Mycotoxins Zearalenone (ZON)	JRC
BCR377	Maize flour (deoxynivalenol, blank)	Biotoxins / Mycotoxins Deoxynivalenol	JRC
FAP80551	Metals in infant cereal	Elements Arsenic (As), Arsenic (inorganic), Cadmium (Cd), Chromium (Cr), Lead (Pb), Mercury (Hg, total), Selenium (Se)	Fapas®
FAP80469	Metals in rice	Elements Arsenic (As), Arsenic (inorganic), Cadmium (Cd), Lead (Pb), Mercury (Hg, total)	Fapas®
FAP80467	Metals in wheat	Elements Aluminium (Al), Arsenic (As, total), Cadmium (Cd), Copper (Cu), Iron (Fe), Lead (Pb), Mercury (Hg, total), Nickel (Ni), Zinc (Zn)	Fapas®
FAP82171	Multi-Mycotoxins in cereals	Biotoxins / Mycotoxins Aflatoxin B1, Ochratoxin A, Deoxynivalenol (DON), Zearalenone (ZON)	Fapas®
FAP88984	Nutritional elements in breakfast cereal	Elements Calcium (Ca), Iron (Fe), Magnesium (Mg), Phosphorous (P), Potassium (K), Sodium (Na), Zinc (Zn)	Fapas®
FAP80836	OA in cereals	Biotoxins / Mycotoxins Ochratoxin A	Fapas®
AR2026	Oatmeal	Elements Carbon, Hydrogen, Nitrogen and Sulfur	Alpha Resources
EMB2149	Pasta	Elements Nitrogen	Elemental Microanalysis
EMB2140	Pasta	Elements Nitrogen	Elemental Microanalysis
EMB2278	Rice Flour	Elements Carbon, Hydrogen, Nitrogen and Sulfur	Elemental Microanalysis
BCR467	Rice flour (amylose, high level)	Carbohydrates Amylose	JRC
BCR465	Rice flour (amylose, low level)	Carbohydrates Amylose	JRC
BCR466	Rice flour (amylose, medium level)	Carbohydrates Amylose	JRC
IRMM804	Rice flour (trace elements)	Elements Arsenic (As), Cadmium (Cd), Copper (Cu), Lead (Pb), Manganese (Mn), Selenium (Se), Zinc (Zn)	JRC
NIST1568B	Rice Flower	Elements Phosphorous, Aluminum (Al), Arsenic (As), Bromine (Br), Cadmium (Cd), Calcium (Ca), Chlorine (Cl), Cobalt (Co), Copper (Cu), Dimethylarsinic acid, Inorganic arsenic (iAs), Iron (Fe), Lead (Pb), Magnesium (Mg), Manganese (Mn), Mercury (Hg), Molybdenum (Mo), Monomethylarsonic acid (MMA), Potassium (K), Rubidium (Rb), Selenium (Se), Sodium (Na), Sulfur (S), Tin (Sn), Zinc (Zn)	NIST
AR2020	Rye Flour	Elements Carbon, Hydrogen, Nitrogen and Sulfur	Alpha Resources

Cat. No.	Description	Analytes listing	Manufacturer
ERMBC381	Rye flour (major nutrients)	Ash, Starch, Total Fat, Kjeldahl nitrogen Elements Phosphorous, Calcium (Ca), Magnesium (Mg), Sodium (Na)	JRC
EMB2158	Sorghum Flour	Elements Carbon, Nitrogen and Sulfur	Elemental Microanalysis
EMB2159	Sorghum Flour	Elements Carbon, Nitrogen and Sulfur, δ 13C, δ 15N, δ 34S	Elemental Microanalysis
BCR471	Wheat (ochratoxin A, blank)	Biotoxins / Mycotoxins Ochratoxin A	JRC
EMB2156	Wheat Flour	Elements Carbon, Hydrogen and Nitrogen	Elemental Microanalysis
EMB2157	Wheat Flour	Elements Carbon, Nitrogen and Sulfur, δ 13C, δ 15N, δ 34S	Elemental Microanalysis
AR2019	Wheat Flour	Elements Carbon, Hydrogen, Nitrogen and Sulfur	Alpha Resources
BCR396	Wheat flour (deoxynivalenol, blank)	Biotoxins / Mycotoxins Deoxynivalenol	JRC
NIST1567B	Wheat Flower	Elements Phosphorus (P), Aluminum (Al), Arsenic (As), Bromine (Br), Cadmium (Cd), Calcium (Ca), Chlorine (Cl), Copper (Cu), Iron (Fe), Lead (Pb), Magnesium (Mg), Manganese (Mn), Mercury (Hg), Molybdenum (Mo), Potassium (K), Rubidium (Rb), Selenium (Se), Sodium (Na), Sulfur (S), Tin (Sn), Vanadium (V), Zinc (Zn)	NIST
BCR121	Wholemeal flour (vitamins)	Vitamins Thiamine (Vitamin B1), Vitamin B6 (total pyridoxine), Folate (total)	JRC



Dairy Products and Eggs Matrix Materials

Cat. No.	Description	Analytes listing	Manufacturer
FAP80733	Aflatoxin M1 in milk powder	Biotoxins / Mycotoxins Aflatoxin M1	Fapas®
ERMBB125	Egg powder (fipronil)	Organic Pollutants / Pesticides Fipronil sulfone, Sum of fipronil and fipronil sulfone expressed as fipronil	JRC
NIST1869	Infant/Adult Nutritional Formula II (milk/whey/soy-based)	Solids, Ash, Protein, Lactose Monohydrate, Calories, Fat (extracted) Histidine, Isoleucine, Leucine, Lysine, Phenylalanine, Proline, Serine, Taurine, Threonine, Tryptophan, Tyrosine, Valine Carbohydrates Glucose, Sucrose, Free Maltose, Lactose, Total Fructans, Total Sugars Lipids and Fatty Acids Caproic Acid, Capric Acid, Caprylic Acid, Lauric Acid, Myristic Acid, Margaric Acid, Palmitic Acid, Palmitoleic Acid, Stearic Acid, Oleic Acid, Vaccenic Acid, Linoleic Acid, α-Linoleic Acid, Arachidic Acid, Arachidonic Acid, Behenic Acid, DHA, Homo-γ-Linolenic Acid, Lignoceric Acid, Nervonic Acid, (Pentadecanoic Acid (C15:0), Total Trans C18:1 Fatty Acids, (E,Z)-9,12-Octadecadienoic Acid (C18:2), (Z,E)-9,12-Octadecadienoic Acid (C18:2), Total Trans C18:1 and C18:2 Fatty Acids, Eicosadienoic Acid (C20:2), Cis-Monounsaturated Fatty Acids, Cis-Polyunsaturated Fatty Acids, Saturated Fatty Acids, Omega-3 Fatty Acids, Omega-6 Fatty Acids, Total Trans Fatty Acid, Fat (as the sum of fatty acids as triglycerides) Elements Calcium (Ca), Copper (Cu), Chlorine (Cl), Chromium (Cr), Iodine (I), Iron (Fe), Magnesium (Mg), Manganese (Mn), Molybdenum (Mo), Phosphorous (P), Potassium (K), Selenium (Se), Sodium (Na), Zinc Zn Vitamins Ascorbic Acid (Vitamin C), Thiamine (Vitamin B1), Riboflavin (Vitamin B2), Niacinamide (Vitamin B3), Total Vitamin B3 as Niacinamide, Pantothenic Acid (Vitamin B5), Pyridoxine (Vitamin B6), Cyanocobalamin (Vitamin B12), Biotin, Total Choline, Free Carnitine, Niacin Equivalents, Folic Acid, Free Choline, Retinol, Retinyl Acetate, Retinyl Palmitate, Ergocalciferol (Vitamin D2), Cholecalciferol (Vitamin D3), α-Tocopherol (free and total), α-Tocopheryl Acetate, β-Tocopherol, γ-Tocopherol, δ-Tocopherol, Phylloquinone (Vitamin K1), trans-Vitamin K1, β-Carotene, Lutein, Lycopene, myo-Inositol" Nucleotides Adenosine Monophosphate, Cytidine Monophosphate, Guanosine Monophosphate, Inosine Monophosphate, Uridine Monophosphate	NIST
FAP80673	Melamine in Milk powder	Organic Pollutants Melamine, Cyanuric acid	Fapas®
FAP80527	Metals in milk powder	Elements Arsenic (As), Cadmium (Cd), Lead (Pb), Mercury (Hg, total)	Fapas®
BCR607	Milk powder (PCDD's, PCDF's)	Organic Pollutants 2,3,7,8-TCDD, 1,2,3,7,8-PeCDD, 1,2,3,4,7,8-HxCDD, 1,2,3,6,7,8-HxCDD, 1,2,3,7,8,9-HxCDD, 2,3,7,8-TCDF, 1,2,3,7,8-PeCDF, 2,3,4,7,8-PeCDF, 1,2,3,4,7,8-HxCDF, 1,2,3,6,7,8-HxCDF, 2,3,4,6,7,8-HxCDF	JRC
BCR450	Natural milk powder (PCB's)	Organic Pollutants PCB 52, PCB 118, PCB 153, PCB 156, PCB 170, PCB 180	JRC
BCR187	Natural milk powder (pesticides)	Organic Pollutants γ-HCH, p,p'-DDE, Hexachlorobenzene	JRC
FAP88659	Nutritional elements in infant formula	Elements Calcium (Ca), Copper (Cu), Iodine (I), Iron (Fe), Magnesium (Mg), Manganese (Mn), Phosphorous (P), Potassium (K), Selenium (Se), Sodium (Na), Zinc (Zn)	Fapas®
FAP88819	Nutritional elements in milk powder	Elements Calcium (Ca), Iodine (I), Magnesium (Mg), Phosphorous (P), Potassium (K), Selenium (Se), Sodium (Na), Iron (Fe), Copper (Cu), Zinc (Zn), Manganese (Mn), Molybdenum (Mo)	Fapas®
FAP88987	Pesticides and PCBs in infant formula	Organic Pollutants / Pesticides Chlordane (cis), Chlorfenvinphos (sum of E and Z isomers), HCH-B (beta hexachlorocyclohexane), Heptachlo-eopxide (cis), PCB 101, Demeton-S-methyl-sulfoxide (oxydemeton-methyl), Nitrofen	Fapas®
FAP89036	Pesticides and PCBs in milk powder	Organic Pollutants / Pesticides Bifenthrin, DDE-pp, Famoxadone, Fenvalerate, HCH-G (gamma hexachlorocyclohexane / lindane), Pendimethalin, Pyrazophos, PCB 52, PCB 153	Fapas®

Cat. No.	Description	Analytes listing	Manufacturer
FAP85259	Proximates in condensed milk	Moisture, Ash, Total Fat, Nitrogen, Total Sugars	Fapas®
BCR685	Skim milk powder	Crude protein, Fat	JRC
ERMBD150	Skimmed milk powder (major and trace elements)	Elements Cadmium (Cd), Calcium (Ca), Chlorine (Cl), Copper (Cu), Iodine (I), Iron (Fe), Lead (Pb), Magnesium (Mg), Manganese (Mn), Mercury (Hg), Phosphorous (P), Potassium (K), Selenium (Se), Sodium (Na), Zinc (Zn)	JRC
ERMBD151	Skimmed milk powder (major and trace elements)	Elements Cadmium (Cd), Calcium (Ca), Chloride, Copper (Cu), Iodine (I), Iron (Fe), Lead (Pb), Magnesium (Mg), Manganese (Mn), Mercury (Hg), Phosphorus (P), Potassium (K), Selenium (Se), Sodium (Na), Zinc (Zn)	JRC
BCR188	Spiked milk powder (pesticides)	Organic Pollutants γ-HCH, p,p'-DDT, Endrin, Dieldrin, p,p'-DDE, b-HEPO, β-HCH, Hexachlorobenzene	JRC
WP-CBR001	Whey protein	Organic Pollutants: Benz[a]anthracene, Benzo[a]pyrene, Benzo[b]fluoranthene, Chrysene Trace Elements: Arsenic (As), Cadmium (Cd), Lead (Pb), Mercury (Hg)	METAS
NIST1845A	Whole egg powder	Solids, Ash, Nitrogen, Protein, Carbohydrates, Fat (as sum of fatty acids as triglycerides) Amino Acids Alanine, Arginine, Aspartic Acid, Cysteine, Glutamic Acid, Glycine, Histidine, Isoleucine, Leucine, Lysine, Methionine, Phenylalanine, Proline, Serine, Threonine, Tryptophan, Tyrosine, Valine Lipids and Fatty Acids Myristic Acid, Myristoleic Acid, Pentadecanoic Acid (C15:0), Palmitic Acid, Palmitoleic Acid, Margaric Acid, Margaroleic Acid, Elaidic Acid, Transvaccenic Acid, Stearic Acid, Oleic Acid, Vaccenic Acid, Linoleic Acid, α-Linolenic Acid, γ-Linolenic Acid, Arachidic Acid, Gadoleic Acid, Gondoic Acid, Eicosadienoic Acid, Dihomo-γ-linolenic Acid, Arachidonic Acid, DPA, DPH, Lignoceric Acid, Nervonic Acid Elements Barium (Ba), Calcium (Ca), Copper (Cu), Iron (Fe), Magnesium (Mg), Manganese (Mn), Phosphorous (P), Potassium (K), Selenium (Se), Sodium (Na), Strontium (Sr), Zinc (Zn) Vitamins Cholecalciferol (Vitamin D3), 25-Hydroxyvitamin D3	NIST
ERMBD600	Whole milk powder	Vitamins Riboflavin (Vitamin B2), Thiamine (Vitamin B1), Vitam B12, Vitamin C (total ascorbate), α-Tocopherol	JRC
NIST1549A	Whole milk Powder	Ash, Carbohydrates, Fat (as the sum of fatty acids as Free Fatty Acids), Protein, Solids Amino Acids Alanine, Arginine, Aspartic Acid, Cysteine, Glutamic Acid, Glycine, Histidine, Isoleucine, Leucine, Lysine, Methionine, Phenylalanine, Serine, Threonine, Tryptophan, Tyrosine, Valine Lipids and Fatty Acids Butyric Acid, Caproic Acid, Caprylic Acid, Cholesterol, DPA, Lauric acid, Linoleic acid, Margaric Acid, Margaroleic Acid, Myristic Acid, Oleic Acid, Palmitic Acid, Palmitoleic Acid, Pentadecanoic Acid (C15:0), Stearic Acid, trans-Palmitelaidic Acid, Tridecanoic Acid (C13:0) Elements Barium (Ba), Calcium (Ca), Copper (Cu), Iodine (I), Iron (Fe), Magnesium (Mg), Manganese (Mn), Molybdenum (Mo), Phosphorous (P), Potassium (K), Selenium (Se), Sodium (Na), Strontium (Sr), Zinc (Zn) Vitamins 25-Hydroxyvitamin D3, Biotin, Carnitine, Cholecalciferol (Vitamin D3), Choline, Niacinamide (Vitamin B3), Pantothenic Acid (Vitamin B5), Pyridoxal, Pyridoxamine (Vitamin B6), Riboflavin (Vitamin B2), Total Vitamin B6 as Pyridoxal, Vitamin B12	NIST
ERMBD284	Whole milk powder, high level	Biotoxins / Mycotoxins Aflatoxin M1	JRC
ERMBD282	Whole milk powder, zero level	Biotoxins / Mycotoxins Aflatoxin M1	JRC

Fish and Seafood Matrix Materials

Cat. No.	Description	Analytes listing	Manufacturer
BCR718	Canned fresh herring	Organic Pollutants PCB 28, PCB 52, PCB 101, PCB 105, PCB 118, PCB 128, PCB 138, PCB 149, PCB 153, PCB 156, PCB 170, PCB 180	JRC
BCR349	Cod liver oil (PCB's)	Organic Pollutants PCB 28, PCB 52, PCB 101, PCB 118, PCB 153, PCB 180	JRC
ERMBB422	Fish muscle	Elements Arsenic (As), Cadmium (Cd), Copper (Cu), Iron (Fe), Mercury (Hg), Iodine (I), Manganese (Mn), Selenium (Se), Zinc (Zn)	JRC
ERMBB350	Fish oil (PCB's)	Organic Pollutants PCB 101, PCB 105, PCB 110, PCB 118, PCB 138, PCB 149, PCB 153, PCB 156, PCB 163, PCB 167, PCB 177, PCB 180, PCB 183, PCB 187, PCB 194, PCB 196, PCB 28, PCB 52, PCB 74, PCB 95, PCB 99	JRC
ERMCE102	Fish Tissue	Organic Pollutants BDE-47 (2,2',4,4'-tetrabromodiphenyl ether), BDE-49 (2,2',4,5'-tetrabromodiphenyl ether), BDE-99 (2,2',4,4',5-pentabromodiphenyl ether), BDE-100 (2,2',4,4',6-pentabromodiphenyl ether), BDE-153 (2,2',4,4',5,5'-hexabromodiphenyl ether), BDE-154 (2,2',4,4',5,6'-hexabromodiphenyl ether) Indicative Values: BDE-28 (2,4,4'-tribromodiphenyl ether), BDE-183 (2,2',3,4,4',5',6-heptabromodiphenyl ether)	JRC
EURM020	Hippoglossus Hippoglossus (Atlantic Halibut) - Fish Powder	Identity by DNA barcode	JRC
FAP79864	Histamine in fish	Allergens Histamine	Fapas®
FAP80466	Metals in seafood	Elements Arsenic (As), Cadmium (Cd), Mercury (Hg)	Fapas®
ERMCE477	Mussel tissue (butyltins)	Elements / Metallorganics DBT: Sn(C4H9)2, MBT: Sn(C4H9)3, TBT: Sn(C4H9)3	JRC
ERMCE278K	Mussel tissue (elements)	Elements Arsenic (As), Cadmium (Cd), Calcium (Ca), Chlorine (Cl), Chromium (Cr), Cobalt (Co), Copper (Cu), Iron (Fe), Lead (Pb), Magnesium (Mg), Manganese (Mn), Mercury (Hg), Nickel (Ni), Potassium (K), Rubidium (Rb), Selenium (Se), Silver (Ag), Sodium (Na), Strontium (Sr), Zinc (Zn)	JRC
BCR682	Mussel tissue (PCB's)	Organic Pollutants PCB 28, PCB 52, PCB 118, PCB 138, PCB 149, PCB 153, PCB 170, PCB 180	JRC
BCR668	Mussel tissue (trace elements)	Trace Elements Arsenic (As), Cadmium (Cd), Cerium (Ce), Cesium (Cs), Chromium (Cr), Cobalt (Co), Dysprosium (Dy), Erbium (Er), Europium (Eu), Gadolinium (Gd), Holmium (Ho), Iron (Fe), Lanthanum (La), Lutetium (Lu), Molybdenum (Mo), Neodymium (Nd), Praseodymium (Pr), Samarium (Sm), Scandium (Sc), Terbium (Tb), Thorium (Th), Thulium (Tm), Uranium (U), Ytterbium (Yb), Yttrium (Y), Zinc (Zn)	JRC
NIST3275	Omega-3 and Omega-6 Fatty Acids in Fish Oil	Lipids and Fatty Acids (Z,Z,Z,Z,Z)-5,8,11,14,17-Eicosapentaenoic Acid (C20:5 n-3; EPA), (Z,Z,Z,Z,Z)-5,8,11,14,17-Eicosapentaenoic Acid (C20:5 n-3; EPA), (Z,Z,Z,Z,Z)-7,10,13,16,19-Docosapentaenoic Acid (C22:5; DPA), (Z,Z,Z,Z,Z)-4,7,10,13,16,19-Docosahexaenoic Acid (C22:6 n-3; DHA), Arachidic Acid, Arachidonic Acid, Behenic Acid, Erucic Acid, Erucic Acid, Gondoic Acid, Lauric Acid, Lignoceric Acid, Linoleic acid, Myristic Acid, Myristoleic Acid, Nervonic Acid, Oleic Acid, Palmitic Acid, Palmitoleic Acid, Vaccenic Acid, α-Linolenic Acid, γ-Linolenic Acid	NIST
NIST1566B	Oyster Tissue	Ash, Total Dietary Fiber, Moisture, Nitrogen (N), Protein Nitrogen, Protein, Solids Elements Aluminum (Al), Antimony (Sb), Arsenic (As), Barium (Ba), Boron (B), Cadmium (Cd), Calcium (Ca), Chlorine (Cl), Cobalt (Co), Copper (Cu), Gold (Au), Hydrogen (H), Iron (Fe), Lead (Pb), Magnesium (Mg), Manganese (Mn), Mercury (Hg), Methylmercury (as mercury), Nickel (Ni), Potassium (K), Rubidium (Rb), Selenium (Se), Silver (Ag), Sodium (Na), Strontium (Sr), Sulfur (S), Thorium (Th), Tin (Sn), Titanium (Ti), Uranium (U), Vanadium (V), Zinc (Zn)	NIST

Cat. No.	Description	Analytes listing	Manufacturer
IRMM427	Pike-perch (PFASs in fish tissue)	Organic Pollutants Branched perfluorooctane sulfonate (br-PFOS), Linear perfluorooctane sulfonate (L-PFOS), Perfluorooctane sulfonamide (FOSA), Perfluorodecanoic acid (PFDA), Perfluorododecanoic acid, Perfluorohexanesulfonate (PFHxS), Perfluorononanoic acid, Perfluorotetradecanoic acid (PFTeDA), Perfluorotridecanoic acid (PFTrDA), Perfluoroundecanoic acid, Total perfluorooctane sulfonate (tot-PFOS)	JRC
BCR725	Salmon tissue	Antibiotics Flumequine, Oxolinic acid	JRC
FAP89089	Total Volatile Basic Nitrogen in fish	Total Volatile Basic Nitrogen (TVB-N)	Fapas®
ERMCE101	Trout Muscle (trace elements)	Elements Arsenic (As), Iron (Fe), Manganese (Mn), Mercury (Hg), Selenium (Se), Zinc (Zn)	JRC
BCR627	Tuna fish tissue (As species)	Elements, Organometallics Arsenobetaine, Dimethylarsinic acid, Total arsenic	JRC



Fruits and Vegetables Matrix Materials

Cat. No.	Description	Analytes listing	Manufacturer
EMB2273	Alfalfa	Elements Carbon, Hydrogen, Nitrogen and Sulphur (S)	Elemental Microanalysis
ERMBC516	Apple (dietary fibre)	Dietary Fibre Dietary fibre according to AOAC 1990 985.29, Dietary fibre according to AOAC 1992 MES-TRIS 991.43, Dietary fibre according to Englyst (by Colorimetry), Dietary fibre according to Englyst (by GC), Dietary fibre according to Uppsala 994.13	JRC
NIST1515	Apple Leaves	Nitrogen (Total) (N) Elements: Phosphorus (P), Aluminum (Al), Boron (B), Barium (Ba), Barium (Ba), Cadmium (Cd), Calcium (Ca), Chlorine (Cl), Copper (Cu), Iron (Fe), Lead (Pb), Magnesium (Mg), Manganese (Mn), Mercury (Hg), Molybdenum (Mo), Nickel (Ni), Potassium (K), Rubidium (Rb), Sodium (Na), Strontium (Sr), Vanadium (V), Zinc (Zn)	NIST
ERMCD200	Bladderwrack, Fucus vesiculosus (trace metals)	Elements Arsenic (As), Cadmium (Cd), Copper (Cu), Lead (Pb), Mercury (Hg), Selenium (Se), Zinc (Zn)	JRC
ERMBC515	Carrot (dietary fibre)	Dietary Fibre Dietary fibre according to AOAC 1990 985.29, Dietary fibre according to AOAC 1992 MES-TRIS 991.43, Dietary fibre according to Englyst (by Colorimetry), Dietary fibre according to Englyst (by GC), Dietary fibre according to Uppsala 994.13	JRC
ERMBC403	Cucumber (pesticides)	Pesticides Acetamiprid, Azoxystrobin, Carbendazim, Chlorpyrifos, Cypermethrin, Diazinon, a-Endosulfan, Fenitrothion, Imazalil, Imidacloprid, Iprodione, Malathion, Methomyl, Tebuconazole, Thiabendazole	JRC



Cat. No.	Description	Analytes listing	Manufacturer
ERMBC514	Haricots beans (dietary fibre)	Dietary Fibre Dietary fibre according to AOAC 1990 985.29, Dietary fibre according to AOAC 1992 MES-TRIS 991.43, Dietary fibre according to Englyst (by Colorimetry), Dietary fibre according to Englyst (by GC), Dietary fibre according to Uppsala 994.13	JRC
FAP80553	Metals in fruit products	Elements Cadmium (Cd), Copper (Cu), Iron (Fe), Lead (Pb), Tin (Sn)	Fapas®
FAP80554	Metals in vegetable puree	Elements Cadmium (Cd), Iron (Fe), Lead (Pb), Tin (Sn)	Fapas®
FAP84209	Patulin in fruit	Biotoxins / Mycotoxins Patulin	Fapas®
NIST1547	Peach leaves	Nitrogen (N) Elements Aluminum (Al), Antimony (Sb), Arsenic (As), Barium (Ba), Boron (B), Bromine (Br), Cadmium (Cd), Calcium (Ca), Cerium (Ce), Chlorine (Cl), Chromium (Cr), Cobalt (Co), Copper (Cu), Europium (Eu), Gadolinium (Gd), Iodine (I), Iron (Fe), Lanthanum (La), Lead (Pb), Magnesium (Mg), Manganese (Mn), Mercury (Hg), Molybdenum (Mo), Neodymium (Nd), Nickel (Ni), Phosphorous, Potassium (K), Rubidium (Rb), Samarium (Sm), Scandium (Sc), Selenium (Se), Sodium (Na), Strontium (Sr), Sulfur (S), Terbium (Tb), Thorium (Th), Uranium (U), Vanadium (V), Ytterbium (Yb), Zinc (Zn)	NIST
NIST1573A	Tomato Leaves	Kjeldahl Nitrogen, Nitrogen (Total), Phosphorus Elements Aluminum (Al), Antimony (Sb), Arsenic (As), Barium (Ba), Boron (B), Bromine (Br), Cadmium (Cd), Calcium (Ca), Cesium (Cs), Cerium (Ce), Chlorine (Cl), Chromium (Cr), Cobalt (Co), Copper (Cu), Gadolinium (Gd), Hafnium (Hf), Hydrogen (H), Iodine (I), Iron (Fe), Lanthanum (La), Magnesium (Mg), Manganese (Mn), Mercury (Hg), Molybdenum (Mo), Nickel (Ni), Potassium (K), Rubidium (Rb), Samarium (Sm), Scandium (Sc), Selenium (Se), Silver (Ag), Sodium (Na), Strontium (Sr), Sulfur (S), Thorium (Th), Uranium (U), Vanadium (V), Zinc (Zn)	NIST
NIST1570A	Trace Elements in Spinach Leaves	Nitrogen (N) Elements Aluminum (Al), Arsenic (As), Boron (B), Cadmium (Cd), Calcium (Ca), Cobalt (Co), Copper (Cu), Europium (Eu), Lead (Pb), Magnesium (Mg), Manganese (Mn), Mercury (Hg), Nickel (Ni), Potassium (K), Phosphorous, Rubidium (Rb), Scandium (Sc), Selenium (Se), Sodium (Na), Strontium (Sr), Sulfur (S), Thorium (Th), Uranium (U), Vanadium (V), Zinc (Zn)	NIST
BCR679	White cabbage (trace elements)	Elements Antimony (Sb), Arsenic (As), Barium (Ba), Boron (B), Cadmium (Cd), Calcium (Ca), Chromium (Cr), Copper (Cu), Iron (Fe), Magnesium (Mg), Manganese (Mn), Mercury (Hg), Molybdenum (Mo), Nickel (Ni), Phosphorous (P), Strontium (Sr), Thallium (Tl), Zinc (Zn)	JRC
IRMM426	Wild berries (bilberries)	Elements ¹³⁷ Cs, ⁴⁰ K, ⁹⁰ Sr, Aluminum (Al), Barium (Ba), Calcium (Ca), Cesium (Cs), Magnesium (Mg), Potassium (K), Rubidium (Rb), Sodium (Na), Strontium (Sr)	JRC

Meat Matrix Materials

Cat. No.	Description	Analytes listing	Manufacturer
BCR648649	Bovine liver (beta-agonist)	Antibiotics Clenbuterol (free base), Salbutamol, Terbutaline	JRC
ERMBB185	Bovine Liver (trace elements)	Elements Arsenic (As), Cadmium (Cd), Copper (Cu), Lead (Pb), Manganese (Mn), Selenium (Se), Zinc (Zn)	JRC
NIST1577C	Bovine liver	Nitrogen Elements Phosphorous, Antimony (Sb), Arsenic (As), Cadmium (Cd), Calcium (Ca), Cesium (Cs), Chlorine (Cl), Chromium (Cr), Cobalt (Co), Copper (Cu), Hydrogen (H), Iron (Fe), Lead (Pb), Lithium (Li), Magnesium (Mg), Manganese (Mn), Mercury (Hg), Molybdenum (Mo), Nickel (Ni), Potassium (K), Rubidium (Rb), Selenium (Se), Silicon (Si), Silver (Ag) Sodium (Na), Strontium (Sr), Sulfur (S), Vanadium (V), Zinc (Zn) Vitamins 25-Hydroxyvitamin D3" <the "3" subscript>	NIST
ERMBB184	Bovine muscle (trace elements)	Elements Arsenic (As), Cadmium (Cd), Calcium (Ca), Chloride, Copper (Cu), Iron (Fe), Magnesium (Mg), Manganese (Mn), Mercury (Hg), Potassium (K), Selenium (Se), Sodium (Na), Zinc (Zn)	JRC
NIST1546A	Meat Homogenate	Ash, Calories, Carbohydrates, Fat / Saturated Fat, Protein, Solids, Nitrate Amino Acids Alanine, Arginine, Aspartic Acid, Cystine, Glutamic Acid, Glycine, Histidine, Hydroxyproline, Isoleucine, Leucine, Lysine, Methionine, Phenylalanine, Phosphate, Proline, Serine, Taurine, Threonine, Tryptophan, Tyrosine, Valine Lipids and Fatty Acids Capric Acid, Lauric acid, Myristic Acid, Myristoleic Acid, Palmitic acid, Palmitoleic Acid, Stearic acid, Oleic acid, Vaccenic Acid, Linoleic acid, α-Linolenic Acid, Arachidic Acid, Gondoic Acid, Lignoceric Acid, Nervonic Acid, Cholesterol, (Z,Z)-11,14-Eicosadienoic Acid (C20:2 n-6), (Z,Z,Z)-11,14,17-Eicosatrienoic Acid (C20:3 n-3), cis-Monounsaturated Fat, γ-Linolenic Acid, Pentadecanoic Acid (C15:0), cis-Polyunsaturated Fat, Dihomo-γ-linolenic Acid, DGLA, Elaidic Acid, Erucic Acid, Total cis-C18:1, Total cis-C18:2, Total cis-C20:1, Total cis-C22:4, Total cis-C22:5, Total trans Fat, Total trans-C18:1, Total trans-C18:2, Total trans-C18:2 conjugated, Total ω-3 Fatty Acids, Total ω-6 Fatty Acids, trans-Vaccenic Acid, Elements Barium (Ba), Boron (B), Calcium (Ca), Chlorine (Cl), Copper (Cu), Iron (Fe), Magnesium (Mg), Manganese (Mn), Molybdenum (Mo), Potassium (K), Rubidium (Rb), Selenium, Sodium (Na), Strontium, Zinc (Zn) Vitamins 25-Hydroxyvitamin D3, Carnitine, Cholecalciferol (Vitamin D3), Choline, Niacin (Vitamin B3), Niacinamide (Vitamin B3), Pantothenic Acid (Vitamin B5), Pyridoxamine (Vitamin B6), Pyridoxine (Vitamin B6), Riboflavin (Vitamin B2), Thiamine (Vitamin B1), Total Vitamin B12 by Microbiological Assay, Total Vitamin B3 as Niacinamide, Total Vitamin B5 by Microbiological Assay, Total Vitamin B6 as Pyridoxine, Total Vitamin B6 by Microbiological Assay	NIST
FAP84231	Nutritional and Hydroxyproline in meat	Biotoxins / Mycotoxins Patulin	Fapas®
FAP85276	Nutritional in canned meat product	Moisture, Ash, Total Fat, Nitrogen, Sodium, Chloride	Fapas®
BCR706	Pig kidney (CTC free)	Antibiotics Chlortetracycline	JRC
ERMBB186	Pig kidney (trace elements)	Elements Cadmium (Cd), Copper (Cu), Iron (Fe), Manganese (Mn), Lead (Pb), Selenium (Se), Zinc (Zn), Arsenic (As), Mercury (Hg), Calcium (Ca), Chlorine (Cl), Potassium (K), Magnesium (Mg), Cobalt (Co), Sodium (Na)	JRC
BCR695	Pig liver (CTC free)	Antibiotics Chlortetracycline	JRC
BCR696	Pig liver (CTC incurred)	Antibiotics Chlortetracycline	JRC
BCR697	Pig muscle (CTC free)	Antibiotics Chlortetracycline	JRC

Cat. No.	Description	Analytes listing	Manufacturer
BCR444	Porcine muscle (chloramphenicol blank)	Antibiotics Chloramphenicol	JRC
ERMBB430	Pork fat (OCP's)	Organic Pollutants Hexachlorobenzene, α -HCH, β -HCH, β -HEPO, p,p'-DDT, p,p'-DDD, p,p'-DDE, γ -HCH, Dieldrin, Endrin	JRC
ERMBB444	Pork fat (PCB blank)	Organic pollutants PCB 28, PCB 52, PCB 101, PCB 118, PCB 138, PCB 153, PCB 180, Lindane, BDE 47	JRC
ERMBB446	Pork fat (PCB) low level	Organic pollutants BDE 47, Lindane, PCB 101, PCB 118, PCB 138, PCB 153, PCB 180, PCB 28, PCB 52	JRC
ERMBB445	Pork fat (PCB) very low level	Organic pollutants PCB 28, PCB 52, PCB 101, PCB 118, PCB 138, PCB 153, PCB 180, Lindane, BDE 47	JRC
ERMBB124	Pork Muscle	Antibiotics 2-hydroxymethyl-1-methyl-5-nitroimidazole (HMMNI), Hydroxyipronidazole (IPZOH), Hydroxymetronidazole (MNZOH), Metronidazole (MNZ), Ronidazole (RNZ), Dimetridazole (DMZ)	JRC
ERMBB130	Pork Muscle	Antibiotics Chloramphenicol	JRC
ERMBB384	Pork muscle, major nutrients	Ash, Total Fat, Kjeldahl nitrogen, Phosphate Trace Elements Calcium (Ca), Magnesium (Mg), Sodium (Na)	JRC



Nuts, Soy, Edible Oils and Fats Matrix Materials

Cat. No.	Description	Analytes listing	Manufacturer
EMB2168	Coconut shell	Elements Carbon, Hydrogen and Nitrogen	Elemental Microanalysis
BCR262R	Defatted peanut meal	Biotoxins / Mycotoxins Aflatoxin B1	JRC
BCR263R	Defatted peanut meal	Biotoxins / Mycotoxins Aflatoxin B1, Aflatoxin B2, Aflatoxin G1, Aflatoxin G2	JRC
BCR264	Defatted peanut meal (aflatoxin B1, high level)	Biotoxins / Mycotoxins Aflatoxin B1	JRC
ERMBC517	Full fat soya (dietary fibre)	Dietary Fibre Dietary fibre according to AOAC 1990 985.29, Dietary fibre according to AOAC 1992 MES-TRIS 991.43, Dietary fibre according to Englyst (by Colorimetry), Dietary fibre according to Englyst (by GC), Dietary fibre according to Uppsala 994.13	JRC
BCR122	Margarine (vitamins)	Vitamins Cholecalciferol (Vitamin D3), α -Tocopherol	JRC
EMB2172	Olive Oil	Elements δ 13C	Elemental Microanalysis
EMB2170	Olive stone	Elements Carbon, Hydrogen and Nitrogen	Elemental Microanalysis
FAP79868	PAH in oils and fats	Organic Pollutants Benz[a]anthracene, Chrysene, Benzo[b]fluoranthene, Benzo[a]pyrene, Indeno[1,2,3-cd]pyrene, Benzo[g,h,i]perylene, PAH4 (sum)	Fapas®
NIST2387	Peanut Butter	Ash, Calories, Carbohydrates, Total Dietary Fiber, Phosphorus (P), Fat (as the sum of fatty acids as triglycerides), Fat (Extractable), Protein, Solids Amino Acids Alanine, Arginine, Aspartic Acid, Cystine, Glutamic Acid, Glycine, Histidine, Isoleucine, Leucine, Lysine, Methionine, Phenylalanine, Proline, Serine, Threonine, Tryptophan, Tyrosine, Valine Biotoxins / Mycotoxins Aflatoxin B1, Aflatoxin B2, Total Aflatoxins Lipids and Fatty Acids Arachidic Acid, Arachidonic Acid, Behenic Acid, Eicosadienoic Acid (C20:2), Erucic Acid, Gondoic Acid, Linoleic acid, Margaric Acid, Margoleic acid, Monounsaturated Fatty Acids, Myristic Acid, Oleic Acid, Palmitoleic Acid, Polyunsaturated Fatty Acids, Stearic acid, Vaccenic Acid, α -Linolenic Acid Elements Calcium (Ca), Copper (Cu), Iron (Fe), Magnesium (Mg), Manganese (Mn), Potassium (K), Sodium (Na), Zinc (Zn) Vitamins	NIST
BCR401R	Peanut butter (aflatoxin low level)	Biotoxins / Mycotoxins Aflatoxin B1, Aflatoxin B2, Aflatoxin G1, Aflatoxin G2	JRC
BCR385R	Peanut butter (aflatoxin, low level)	Biotoxins / Mycotoxins Aflatoxin B1, Aflatoxin B2, Aflatoxin G1, Aflatoxin G2	JRC
FAP89005	Pesticides and PCBs in fat	Organic Pollutants / Pesticides Chlordane (oxy), Chlordane (trans), Endosulfan II (beta), Fenvalerate, Heptachlor, Parathion (ethyl), Profenofos, PCB 101	Fapas®
FAP89004	Pesticides in oil	Pesticides Dimethoate, Endosulfan I (alpha), Fenthion-sulfoxide, Fiefenoxuron, Penconazole, Phosmet	Fapas®
EMB2154	Protein	Elements Nitrogen	Elemental Microanalysis
ERMBC190	Rapeseed (S, total glucosinolate)	Phytochemicals Total glucosinolate (GSL) Elements Sulphur (S)	JRC

Cat. No.	Description	Analytes listing	Manufacturer
ERMBC366	Rapeseed (S, total glucosinolate)	Phytochemicals Total glucosinolate (GSL) Elements Sulphur (S)	JRC
ERMBC367	Rapeseed (S, total glucosinolate)	Phytochemicals Total glucosinolate (GSL) Elements Sulphur (S)	JRC
ERMBC211	Rice flour (Total As and As species)	Elements / Metallorganics Dimethylarsinic acid, Total Arsenic (As), The sum of arsenite and arsenate	JRC
AR2016	Soy Bean Meal	Elements Nitrogen and Sulphur (S)	Alpha Resources
NIST3234	Soy Flour	Ash, Calories, Carbohydrates, Total Dietary Fiber, Fat (as the sum of fatty acids as triglycerides), Phosphorus (P), Protein Amino Acids Alanine, Arginine, Aspartic Acid, Cystine, Glutamic Acid, Glycine, Histidine, Isoleucine, Leucine, Lysine, Methionine, Phenylalanine, Proline, Serine, Threonine, Tryptophan, Tyrosine, Valine Phytochemicals Daidzein, Daidzin, Genistein, Genistin, Glycitin Elements Calcium (Ca), Copper (Cu), Iron (Fe), Magnesium (Mg), Manganese (Mn), Potassium (K), Sodium (Na), Zinc (Zn)	NIST
BCR162R	Soya-maize oil blend (fatty acid profile)	Lipids and Fatty Acids 16:0 (n-hexadecanoic acid), 9c-18:1 (n-octadecenoic acid), 9c,12c-18:2 (n-octadecadienoic acid), 9c,12c,15c-18:3 (n-octadecatrienoic acid), 18:0 (n-octadecanoic acid), 18:1 (n-octadecenoic acid) , 18:2 (n-octadecadienoic acid), 18:3 (n-octadecatrienoic acid)	JRC
NIST3278	Tocopherols in Edible Oils	Vitamins α -Tocopherol, β -Tocopherol, γ -Tocopherol, δ -Tocopherol	NIST



Processed Food Matrix Materials

Cat. No.	Description	Analytes listing	Manufacturer
BCR644	Artificial foodstuff (Fructose, Sucrose, Lactose and Starch/glucose)	Carbohydrates Fructose, Lactose, Starch/glucose, Sucrose	JRC
BCR645	Artificial foodstuff (Sucrose, Lactose and starch/glucose)	Carbohydrates Lactose, Sucrose, Starch/glucose	JRC
NIST2383A	Baby Food Composite	Ash, Carbohydrates, Total Sugars, Protein Carbohydrates Fructose, Glucose, Lactose, Sucrose Amino Acids Alanine, Arginine, Aspartic Acid, Cystine, Histidine, Phenylalanine, Tyrosine, Valine Elements Arsenic (As), Barium (Ba), Calcium (Ca), Chromium (Cr), Cobalt (Co), Copper (Cu), Iodine (I), Iron (Fe), Magnesium (Mg), Manganese (Mn), Molybdenum (Mo), Nickel (Ni), Phosphorus (P), Potassium (K), Selenium (Se), Sodium (Na), Strontium (Sr), Tin (Sn), Zinc (Zn) Vitamins Total Lutein, Total Zeaxanthin, trans- β -Carotene, Total α -Tocopherol	NIST
NIST2384	Baking Chocolate	Ash, Calories, Carbohydrates, Proteins, Total Dietary Fiber, Fat (as the sum of fatty acids as triglycerides), Fat (Extractable), Solids Lipids and Fatty Acids Arachidic Acid, Behenic Acid, Gadoleic Acid, Lauric Acid, Lignoceric Acid, Linoleic acid, Margaric Acid, Myristic Acid, Palmitic Acid, Palmitoleic Acid, Pentadecanoic Acid (C15:0), Stearic acid, Vaccenic Acid, α -Linolenic Acid Elements Cadmium (Cd), Calcium (Ca), Copper (Cu), Iron (Fe), Lead (Pb), Magnesium (Mg), Manganese (Mn), Phosphorus (P), Potassium (K), Sodium (Na), Zinc (Zn)	NIST
ERMBD512	Dark Chocolate	Elements Cadmium (Cd), Copper (Cu), Manganese (Mn), Nickel (Ni)	Fapas®
FAP79867	Nut allergen in biscuit	Allergens Hazelnut and Peanut. Value for whole hazelnut and whole peanut protein spike and reference values for different ELISA kits.	Fapas®
FAP79859	Nut allergen in choc, quant	Allergens Almond Proteins. Value for whole almond protein spike and reference values for different ELISA kits.	Fapas®

Spices Matrix Materials

Cat. No.	Description	Analytes listing	Manufacturer
FAP79875	Metals in spices	Trace Elements Arsenic (As), Cadmium (Cd), Lead (Pb)	Fapas®
FAP80775	Mycotoxins in spices	Biotoxins / Mycotoxins Aflatoxin B1, Aflatoxin B2, Aflatoxin G1, Aflatoxin G2, Aflatoxin (total), Ochratoxin A	Fapas®
ERMBD286	Paprika Powder (aflatoxin B1, G1)	Biotoxins / Mycotoxins Aflatoxin B1, Aflatoxin G1 non certified values for: Aflatoxin B2, Aflatoxin G2, Ochratoxin A	JRC

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