Table S3. Quality assurance and quality control - CRMs.

Quality Control Data for Reproducibility (Control Charts) – Pb

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| CRM | Matrix | Certified value  (mg/kg; water:µg/L) | Laboratory average | Recovery (%) | RSDR (%) | N |
| SRM 1640d | Water | 12.101 ± 0.050 | 12.032 ± 0.543 | 99.4 | 4.5 | 395 |
| BCR – 063R | Milk Powder | 0.0185 ± 0.0027 | 0.0187 ± 0.0022 | 102.7 | 11.8 | 92 |
| DORM – 3 | Fish Protein | 0.395 ± 0.050 | 0.379 ± 0.026 | 95.9 | 6.9 | 36 |
| DORM – 4 | Fish Protein | 0.416 ± 0.053 | 0.409 ± 0.026 | 98.5 | 6.4 | 25 |
| ZC 73031 | Carrot | 0.43 ± 0.07 | 0.369 ± 0.046 | 85.8 | 12.5 | 70 |
| SRM 1568b | Rice Flour | 0.008 ± 0.003 | 0.008 ± 0.001 | 100 | 12.5 | 72 |
| SRM 3256 | Green Tea | 0.316 ± 0.030 | 0.313 ± 0.018 | 99.1 | 5.8 | 137 |

Quality Control Data for Reproducibility (Control Charts) – Cd

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| CRM | Matrix | Certified value  (mg/kg; water:µg/L) | Laboratory average | Recovery (%) | RSDR (%) | N |
| SRM 1640d | Water | 3.992 ± 0.074 | 3.992 ± 0.074 | 99.1 | 1.9 | 394 |
| BCR – 150 | Milk Powder | 0.0218 ± 0.0014 | 0.0205 ± 0.0017 | 96.3 | 8.3 | 62 |
| DORM – 3 | Fish Protein | 0.290 ± 0.020 | 0.287 ± 0.013 | 99.0 | 4.5 | 36 |
| DORM – 4 | Fish Protein | 0.306 ± 0.015 | 0.294 ± 0.013 | 96.1 | 4.4 | 27 |
| ZC 73031 | Carrot | 0.034 ± 0.004 | 0.033 ± 0.002 | 97.1 | 6.1 | 71 |
| SRM 1568b | Rice Flour | 0.0224 ± 0.0013 | 0.021 ± 0.001 | 93.8 | 4.8 | 77 |
| SRM 3256 | Green Tea | 0.025 ± 0.002 | 0.023 ± 0.002 | 92.0 | 8.7 | 131 |

Quality Control Data for Repeatability (estimated from parallel determination of real samples)

|  |  |  |  |
| --- | --- | --- | --- |
| Element | Matrix | RSDr (%) | N |
| Pb | water | 2.3 | 135 |
| Pb | food | 8.6 | 88 |
| Cd | water | 5.1 | 76 |
| Cd | food | 7.4 | 124 |

CRM: Certified reference material

N: Number of data

RSDR: Relative standard deviation calculated from results generated under reproducibility conditions

RSDr: Relative standard deviation calculated from results generated under repeatability conditions