**Table S1**. Performance characteristics of the HPLC-ICP-MS method.

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| --- | --- | --- | --- | --- | --- |
|  | **R***1* | **Sensitivity***2* | **LOD***3* | **LOQ***4* | **Accuracy***5* |
| MeSeCys | 0.993 | 3888 | 0.22 | 0.73 | 93±13 |
| SeMet | 0.995 | 3046 | 0.34 | 1.12 | 96±10 |
| SeIV | 0.998 | 3516 | 0.35 | 1.18 | 112±10 |
| SeVI | 0.995 | 5017 | 0.17 | 0.56 | 87±8 |

*1*Correlation coefficient. *2*Slope of the calibration curve (a) in the equation *y*= a*x*+b, where *y* is the measured intensity, *x* is the selenium species concentration and b is the intercept set at zero concentration. Expressed as cps. *3*Limit of detection expressed as µgSe/L calculated as 3 times the standard deviation of the measurement of 10 method blanks. *4*Limit of quantification expressed as µgSe/L calculated as 10 times the standard deviation of the measurement of 10 method blanks. *5*Assessed by spiking known amount of Se species at one fortification level, under repeatability conditions. Expressed as percentage.