**Supplementary Digital Content 3.** Assay characteristics for each parameter. Data represent mean ± SD.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Parameter** | **Linearity** | **Intra assay imprecision mean (CV%)** | **Inter assay imprecision mean (CV%)** | **LLoQ** | **Recovery mean (%)** |
|  |  |  |  |  |  |
| **24,25[OH]2D3 (nmol/L)** | 0-25 | 1.9 ± 0.19 (10.3)5.8 ± 0.44 (7.6) | 2.0 (±0.21) 10.5%6.1 (±0.51) 8.3%14.8 (±1.16) 7.9% | 0.1 | 97 ± 6 |
|  |  |  |  |  |  |
| **24,25[OH]2D2 (nmol/L)** | 0-25 | 2.1 ± 0.16 (7.6)6.5 ± 0.5 (7.7) | 1.8 ± 0.20 (11.0)5.7 ± 0.61 (10.7)19.4 ± 1.95 (10.0) | 0.2 | 96 ± 5 |
|  |  |  |  |  |  |
| **25[OH]D3 (nmol/L)** | 0-200 | 32.5 ± 3.0 (9.3)88.1 ± 5.7 (6.5)180.4 ± 16.5 (9.1) | 27.1 ± 2.9 (10.9)66.2 ± 6.0 (9.1)169.7 ± 15.2 (8.9) | 0.5 | 96 ± 2 |
|  |  |  |  |  |  |
| **25[OH]D2 (nmol/L)** | 0-200 | 24.8 ± 1.6 (6.6)64.9 ± 3.2 (4.9)140.6 ± 4.7 (3.3) | 25.0 ± 2.0 (8.0)72.3 ± 5.7 (7.9)148.9 ± 9.4 (6.3) | 0.5 | 97.8 ± 4 |
|  |  |  |  |  |  |
| **1,25[OH]2D3 (pmol/L)** | 5.7-544 | 43.1 ± 5.3 (12.3)120.8 ± 17.4 (14.3) | 43.1 ± 5.3 (12.3)120.8 ± 12.4 (11.1) | 20 | 96 ± 9.8 |
|  |  |  |  |  |  |
| **iPTH****(pmol/L)** | 0.126-525 | 2.8 ± 0.07 (2.7)5.51 ± 0.09 (1.6)27.41 ± 0.42 (1.5) | 2.44 ± 0.08 (3.4)8.49 ± 0.21 (2.5)25.2 ± 0.71 (2.8) | 0.13 | 100 ± 4 |