## Supplementary figure 1

## . future <br> diagnostics

B. Specificity

Cross reactivity of the antibody used in the Free 250 H Vitamin D ELISA was determined by the supplier as depicted in the table.

| Compound and Concentration | \% Cross reaction |
| :--- | :--- |
| 25 OH -Vitamin $D_{3}$ at $10 \mathrm{ng} / \mathrm{mL}$ | 100 |
| 25 OH -Vitamin $D_{2}$ at $10 \mathrm{ng} / \mathrm{mL}$ | 86 |
| $1,25(\mathrm{OH})_{2}$-Vitamin $\mathrm{D}_{3}$ at $200 \mathrm{ng} / \mathrm{mL}$ | 20 |
| $1,25(\mathrm{OH})_{2}$-Vitamin $\mathrm{D}_{2}$ at $690 \mathrm{ng} / \mathrm{mL}$ | 1.9 |
| Vitamin $\mathrm{D}_{3}$ at $200 \mathrm{ng} / \mathrm{mL}$ | 2.9 |
| Vitamin $D_{2}$ at $200 \mathrm{ng} / \mathrm{mL}$ | 1.3 |
| $24,25(\mathrm{OH})_{2}$-Vitamin $\mathrm{D}_{3}$ at $20 \mathrm{ng} / \mathrm{mL}$ | $>100$ |
| $25,26(\mathrm{OH})_{2}$-Vitamin $\mathrm{D}_{3}$ at $4 \mathrm{ng} / \mathrm{mL}$ | $>100$ |
| 3 epi 25 OH -Vitamin $\mathrm{D}_{3}$ at $20 \mu \mathrm{~g} / \mathrm{mL}$ | 0.1 |

C. Intermediate Precision \& Repeatability

Intermediate Precision and repeatability is determined based on CLSI EP05-A3.

| Sample | N | $\mathrm{Pg} / \mathrm{mL}$ |  | Repeatability <br> (within run) | Intermediate <br> Precision (Total) |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SD | 0.29 | 0.34 |
|  |  |  | CV | $4.9 \%$ | $5.9 \%$ |
| Pool 2 | 80 | 9.6 | SD | 0.53 | 0.59 |
|  |  |  | CV | $5.5 \%$ | $6.1 \%$ |
| Pool 3 | 80 | 18.4 | SD | 0.35 | 0.75 |
|  |  |  | CV | $1.9 \%$ | $4.0 \%$ |
| Pool 4 | 80 | 28.1 | SD | 1.26 | 1.76 |
|  |  |  | CV | $4.5 \%$ | $6.3 \%$ |

