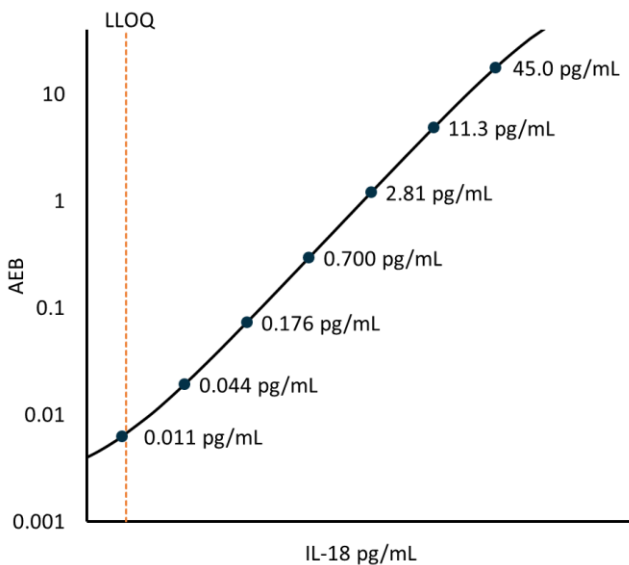


**Description**

Interleukin 18 (IL-18) is a 193 amino acid glycoprotein with a mass of 22.3 kDa. IL-18 is part of the IL-1 family; it has structural similarity to IL-1beta and is activated from a pro-form by intracellular IL-1beta converting enzyme (ICE). IL-18 receptor (IL-18R) is part of the toll-like receptor family, and IL-18 activity can be neutralized by IL-18-binding protein (IL-18bp). IL-18 plays a major role in Th1-mediated immune response in collaboration with IL-12. Endogenous functions of IL-18 include stimulation of IFN-γ production, increase in cytotoxicity of natural killer cells, stimulation of T helper cell differentiation and NF-κB release. IL-18 plays a major role in stimulating natural killer cell function during viral and bacterial infections. IL-18 is up-regulated and thought to play a major inflammatory role in gastrointestinal cancers. IL-18 serum concentrations correlate to patient tumor malignancies in individuals with breast cancer. IL-18 is a sensitive tumor marker in oral cavity cancer patients and increasing serum levels of the marker have been observed along the progression of the disease. This relationship is also thought to involve VEGF6. IL-18 has been found to increase expression of vascular cellular adhesion molecule 1 (VCAM-1) in hepatic melanoma which increases tumor adherence and metastasis. IL-18 has been proposed as a novel adjuvant therapy against cancer.

**Calibration Curve:** Four-parameter curve fit parameters are depicted.



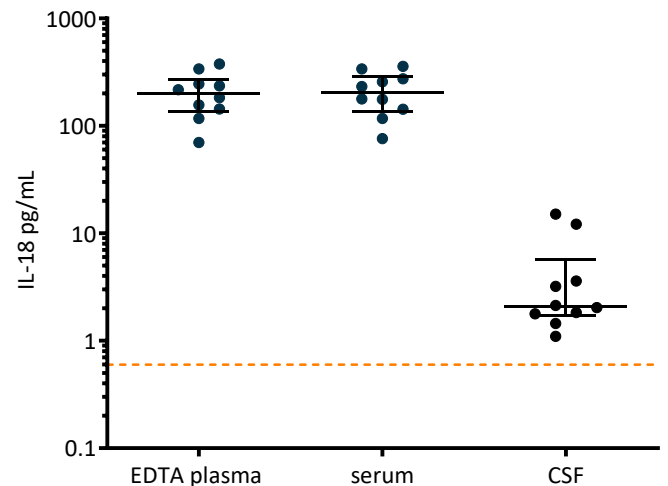
**Lower Limit of Quantification (LLOQ):** Triplicate measurements of serially diluted calibrator were read back on the calibration curve over 1 reagent lot on 1 instrument (5 runs total).

**Limit of Detection (LOD):** Calculated as 2.5 standard deviations from the mean of background signal read back on each calibration curve over 1 reagent lot on 1 instrument (5 runs total).

<b>LLOQ</b>	<b>0.012 pg/mL</b> pooled CV 11.4% mean recovery 105%
<b>LOD</b>	<b>0.004 pg/mL</b> range 0.002–0.006 pg/mL
<b>Dynamic range (serum and plasma)</b>	0–2250 pg/mL
<b>Diluted Sample volume*</b>	100 μL per measurement
<b>Tests per kit</b>	192

\*See Kit Instruction for details

**Endogenous Sample Reading:** Healthy donor matched EDTA plasma (n=10) and serum (n=10) were measured. 10 CSF samples were measured. Error bars depict median with interquartile range. Orange lines represent functional LLOQ.



Sample Type	Median IL-18 pg/mL	% Above LOD
EDTA Plasma	200	100%
Serum	205	100%
CSF	2.08	100%

**Precision:** Representative precision was estimated with repeated assay of serum and plasma panels using one instrument and one reagent lot. Within-run and between-run CVs are depicted in the following table. Within-run CVs reflect average CVs across 5 experiments of 3 replicates each.

Sample	Mean (pg/mL)	Within run CV	Between run CV
Plasma Panel 1	301.7	4.4%	11.1%
Plasma Panel 2	171.8	4.1%	10.1%
Serum Panel 3	475.2	3.4%	5.6%

**Spike and Recovery:** IL-18 spiked into 2 serum and 2 plasma samples at 2.5 and 25 pg/mL.

**Dilution Linearity:** Serum diluted 2x serially from MRD (50x) to 6400x with Sample Diluent.

<b>Spike and Recovery (Serum/Plasma)</b>	<b>Mean = 101.4%</b> Range: 98–105%
<b>Dilution Linearity (6400x)</b>	<b>Mean = 113.1%</b> Range: 102.7–124.7%