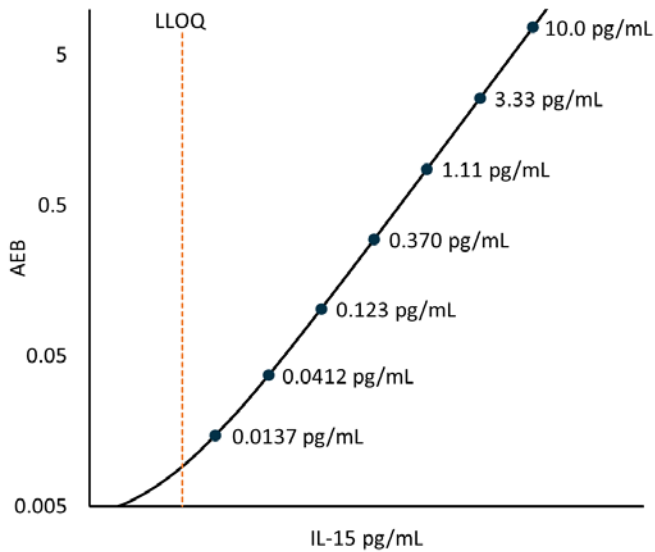


Description

Interleukin 15 (IL-15) is a glycosylated 14-15 kDa cytokine with structural similarity to IL-2. Like IL-2, IL-15 binds to and signals through the IL-2/IL-15 beta chain (CD122) and the common gamma chain (gamma-C, CD132). IL-15 is constitutively expressed by a large number of cell types and tissues, including monocytes, macrophages, dendritic cells, keratinocytes, fibroblasts, and nerve cells. IL-15 up-regulation plays a central role in the development of several autoimmune or chronic inflammatory disorders. This cytokine induces cell proliferation of natural killer cells; cells of the innate immune system whose principal role is to kill virally infected cells. IL-15 has been shown to enhance the anti-tumor immunity of CD8+ T cells in pre-clinical models.

Calibration Curve: Calibrator concentrations and Lower Limit of Quantification depicted.



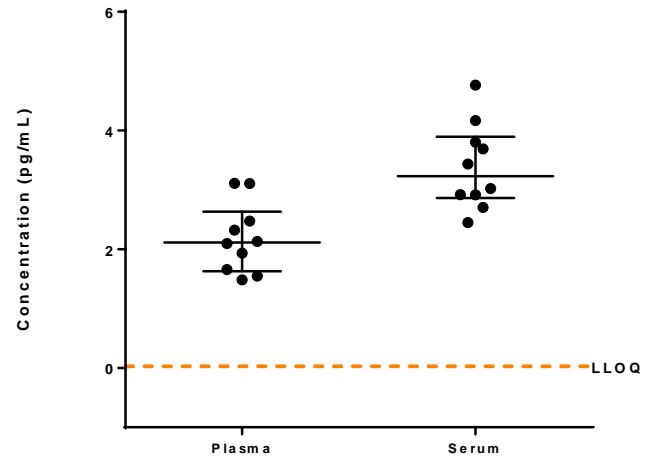
Lower Limit of Quantification (LLOQ): Triplicate measurements of serially diluted calibrator were read back on the calibration curve over 6 runs each for 1 reagent lot across 2 instruments (6 runs total).

Limit of Detection (LOD): Calculated as 2.5 standard deviations from the mean of background signal read back on each calibration curve over 6 runs each for 1 reagent lot across 2 instruments (6 runs total).

LLOQ	0.0069 pg/mL pooled CV 16% mean recovery 98%
LOD	0.0020 pg/mL range 0.0003-0.0055 pg/mL
Dynamic range (serum and plasma)	0-40 pg/mL
Diluted Sample volume*	100 µL per measurement
Tests per kit	96

*See Kit Instruction for details

Endogenous Sample Reading: Healthy donor matched EDTA plasma (n=10), and serum (n=10) were measured. Bars depict median with interquartile range. Orange line represents functional LLOQ.



Sample Type	Mean IL-15 pg/mL	Median IL-15 pg/mL	% Above LOD
Serum	3.39	3.23	100%
Plasma	2.19	2.11	100%

Precision: Measurements of 3 serum-based panels and 2 calibrator based controls. Triplicate measurements were made for 6 runs each for 1 reagent lot across 2 instruments (6 runs total, 18 measurements).

Sample	Mean (pg/mL)	Within run CV	Between run CV	Between inst CV
Control 1	7.64	7.8%	6.4%	2.8%
Control 2	0.706	10.1%	16.3%	4.2%
Panel 1	5.21	5.5%	12.2%	2.7%
Panel 2	47.0	6.2%	11.2%	6.2%
Panel 3	4.51	7.2%	14.0%	5.8%

Spike and Recovery: 2 serum and 2 EDTA plasma samples were spiked at high and low concentrations within the range of the assay and analyzed on SR-X.

Dilution Linearity: 1 endogenous EDTA plasma and 1 endogenous serum sample were diluted 2X serially from MRD (4x) to 128x with Sample Diluent.

Spike and Recovery (Serum/Plasma)	Mean = 84% Range: 62-100%
Dilution Linearity (128x)	Mean = 107% Range: 101–112%

The Simoa IL-15 assay kit is formulated for use on either the SR-X or HD-1 platform. Data in this document was obtained from runs on the SR-X platform unless otherwise noted. Some differences in performance claims between the HD-1 and SR-X may be observed when comparing datasheets for the two platforms. This may be due to experiments run at different time-points with different reagent lots and different samples, or may be due to minor differences in antibody and analyte behavior in the different assay formats.