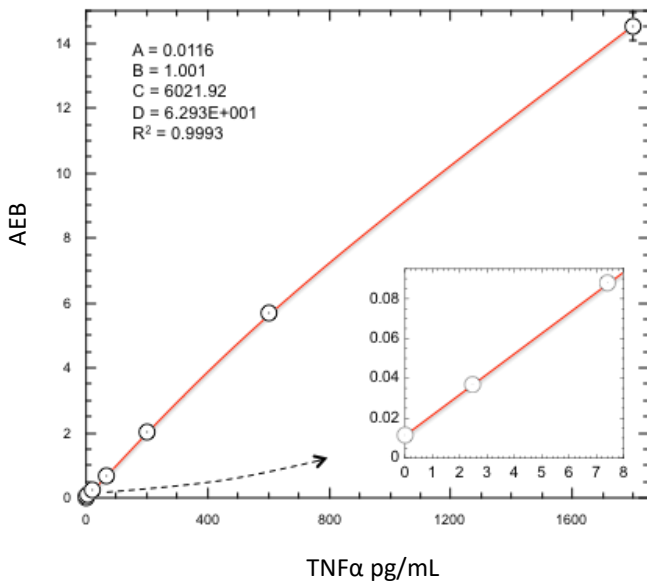


**Description**

Mouse tumor necrosis factor alpha (TNFα) is a homotrimeric transmembrane protein that functions as a proinflammatory cytokine. It is produced mainly by macrophages but also by a variety of other cell types, including monocytes, neutrophils, and T-cells. The involvement of TNFα in several signal transduction pathways links the protein to such diverse functions as acute inflammation, apoptosis, septic shock, cellular proliferation, and differentiation. Mouse TNFα is a non-glycosylated protein of 157 amino acids, with a molecular weight of approximately 17,000 daltons. The clinical relevance of TNFα stems from its association with numerous disease states including rheumatoid arthritis, cancer, cachexia, and Crohn’s disease.

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



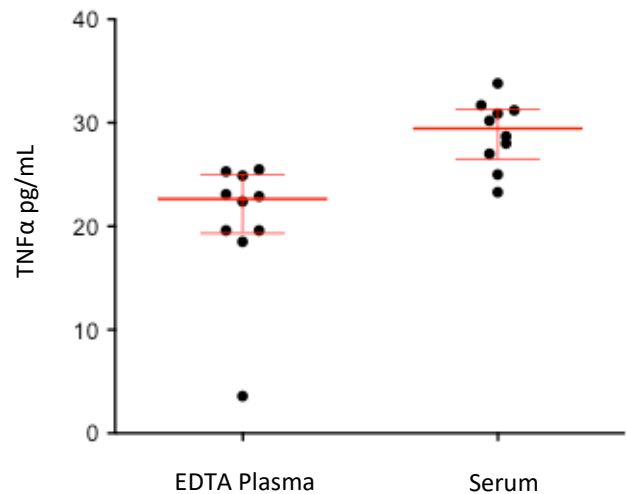
**Lower Limit of Quantification (LLOQ):** Triplicate measurements of serially diluted calibrator were read back on the calibration curve over 1 reagent lot across 3 instruments (5 runs total).

**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 across 3 instruments (5 runs total).

<b>LLOQ</b>	<b>1.23 pg/mL</b> pooled CV 19.7% mean recovery 109%
<b>LOD</b>	<b>0.132 pg/mL</b> range 0.0741–0.265 pg/mL
<b>Dynamic range (serum and plasma)</b>	0–7200 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:** TNFα in EDTA plasma (n=10) and serum (n=10) from non-medicated, non-immunized mice. Error bars depict median and interquartile ranges.



Sample Type	Median TNFα pg/mL	% Above LOD
EDTA Plasma	22.6	100%
Serum	29.4	100%

**Precision:** Representative precision was estimated with repeated assay of serum 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
Serum Panel 1	23.7	5.1%	8.3%
Serum Panel 2	30.4	7.4%	9.2%
Serum Panel 3	29.1	10.7%	11.3%

**Spike and Recovery:** TNFα spiked into 4 serum pools at 2 levels.

**Dilution Linearity:** Serum pool diluted 2x serially from MRD (4x) to 256x with Sample Diluent.

<b>Spike and Recovery (Serum)</b>	<b>Mean = 83.8%</b> Range: 73–88%
<b>Dilution Linearity (256x)</b>	<b>Mean = 113%</b> Range: 104–121%