

## Biology and Disease

Interleukin-10 (IL-10) is a cytokine with both stimulatory and suppressive effects on the immune system. The protein originates from several cell lines, including Th2 cells, mast cells, macrophages, monocytes and B-cells. Its main functions are to impede inflammatory responses and to inhibit synthesis of other pro-inflammatory cytokines, such as IL-2, IL-3, GM-CSF, IFN- $\gamma$  and TNF- $\alpha$ . Besides its anti-inflammatory capabilities, IL-10 also regulates the production of natural killer cells and lymphocytes. Due to its multiple roles, proper function of IL-10 is required to maintain a healthy immune system. Improper function of IL-10 can result in disease development, as over-expression of IL-10 has been linked to lymphoma, whereas IL-10 deficiency has implications for Crohn's disease.

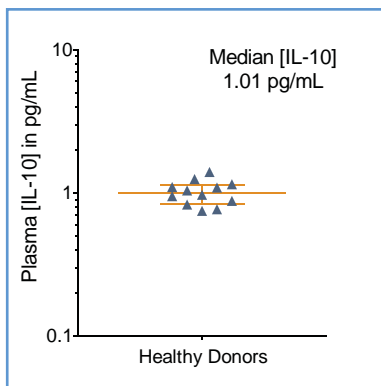
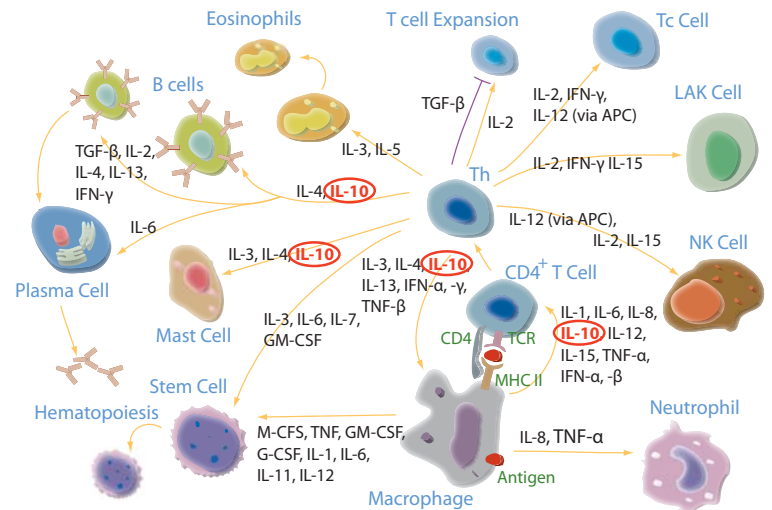


FIGURE 1: [IL-10] in EDTA plasma from 12 healthy donors, with median and interquartile range.

The Erenna® IL-10 Immunoassay Kit reliably quantifies IL-10 in EDTA plasma from healthy subjects, who have a median [IL-10] of 1.01 pg/mL that is well above the detection limit of 0.06 pg/mL.

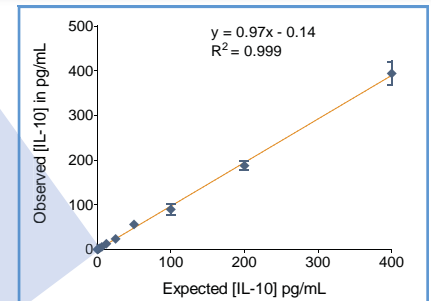
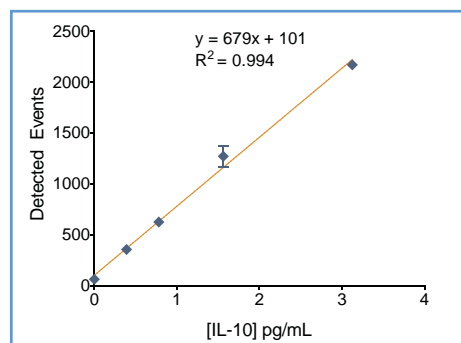


FIGURE 2: Erenna® IL-10 Immunoassay Kit low-end standard curve signal (left) and curve fit (above).

TABLE 1: Analytical sensitivity of the Erenna® IL-10 Immunoassay Kit<sup>1</sup>

Lower Limit of Detection	0.06 pg/mL
Lower Limit of Quantification <sup>2</sup>	0.39 pg/mL
Upper Limit of Quantification	400 pg/mL
Low-end CV% Range	1 -12%
Low-end CV% Average	6%
Recommended Sample Volume	100 $\mu$ L
Minimum Sample Volume Required <sup>3</sup>	50 $\mu$ L
Matrices Validated	human EDTA plasma

<sup>1</sup> see product insert for updated values

<sup>2</sup> LLoQ  $\leq$  20% CV and  $\pm$  20% recovery

<sup>3</sup> based upon median [IL-10] in a healthy reference population



Representative data shown for demonstration purposes only. Individual results may vary depending upon samples tested and protocol used.