

Biology and Disease

Interleukin-7 (IL-7) is an endogenous cytokine responsible for the proliferation of B- and T-lymphocytes. The active human form of IL-7 has 152 aa and is expressed by fibroblasts, stromal, dendritic and endothelial cells. IL-7 often acts in synergy with other cytokines. For example, IL-7 is found to have an additive effect on T-cell activation in combination with IL-12. However, IL-7 is not redundant, as abnormal function of IL-7 has been implicated in immune disorders such as common variable immunodeficiency, HIV and rheumatoid arthritis (RA). Thus, IL-7 is an excellent candidate for therapeutic development because of its crucial role in the modulation of innate immunity. Both activation and suppression of IL-7 may be of value in future therapeutic interventions.

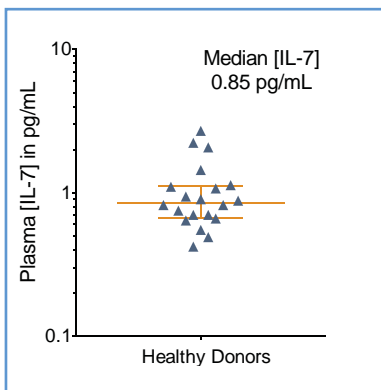
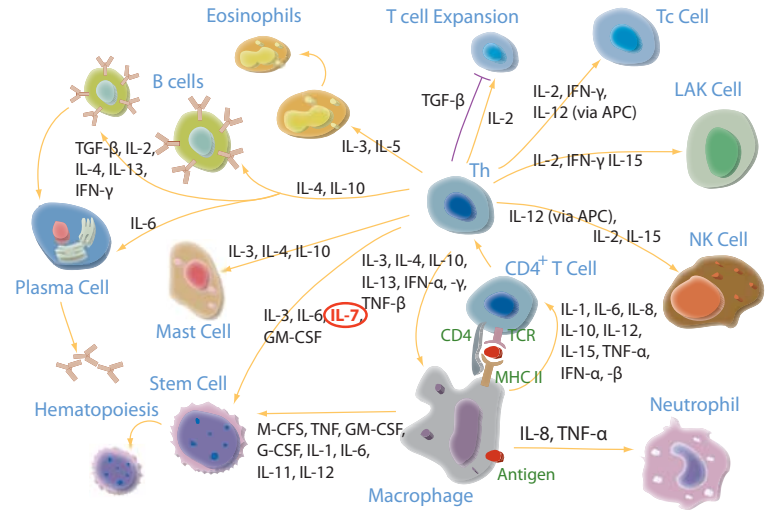


FIGURE 1: [IL-7] in EDTA plasma from 20 healthy donors, with median and interquartile range.

The Erenna® IL-7 Immunoassay Evaluation Reagent Kit reliably quantifies IL-7 in healthy subjects, who have a median [IL-7] of 0.85 pg/mL that is well above the detection limit of 0.01 pg/mL.

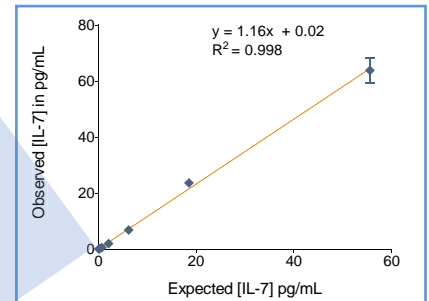
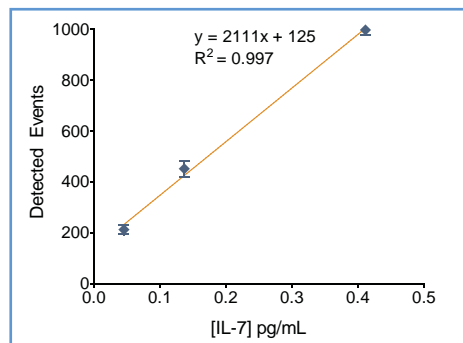


FIGURE 2: Erenna® IL-7 Immunoassay Evaluation Reagent Kit low-end standard curve signal (left) and curve fit (above).

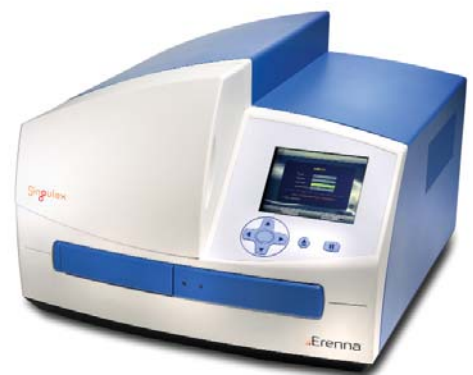
TABLE 1: Analytical sensitivity of the Erenna® IL-7 Immunoassay Evaluation Reagent Kit¹

Lower Limit of Detection	0.01 pg/mL
Lower Limit of Quantification ²	0.05 pg/mL
Upper Limit of Quantification	56 pg/mL
Low-end CV% Range	2 - 9%
Low-end CV% Average	6%
Assay Volume	100 µL
Minimum Sample Volume Required ³	10 µL

¹ see product insert for updated values

² LLoQ ≤ 20% CV and ± 20% recovery

³ based upon median [IL-7] in a healthy reference population



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