

## Biology and Disease

Interleukin-1 alpha and beta (IL-1α and IL-1β) are pro-inflammatory cytokines involved in immune defense against infection, and are part of the IL-1 superfamily of cytokines. Both IL-1α and IL-1β are produced by macrophages, monocytes and dendritic cells.

IL-1 is involved in various immune responses with a primary role in inflammation, making it a target for Rheumatoid Arthritis (RA). IL-1α and IL-1β are produced as precursor peptides, which are proteolytically processed and released in response to cell injury, and thus induce apoptosis. IL-1β production in peripheral tissue has also been associated with hyperalgesia (increased sensitivity to pain) associated with fever.

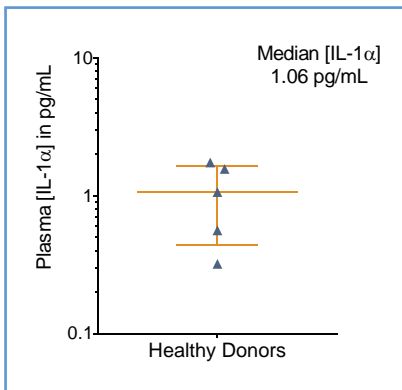
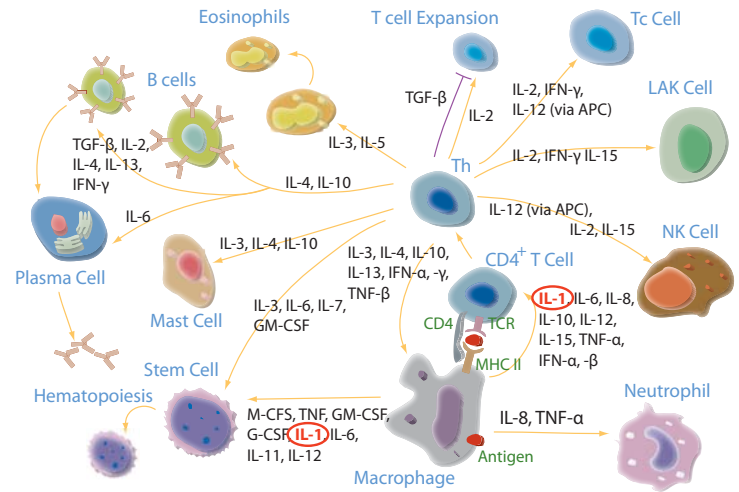


FIGURE 1: [IL-1α] in EDTA plasma from 10 healthy donors (5 samples < LLoQ), with median and interquartile range.

The Erenna® IL-1α Immunoassay Kit can quantify IL-1α in EDTA plasma from healthy subjects, who have a median [IL-1α] of 1.06 pg/mL that is above the detection limit of 0.25 pg/mL.

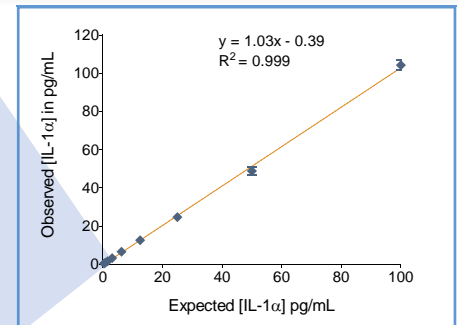
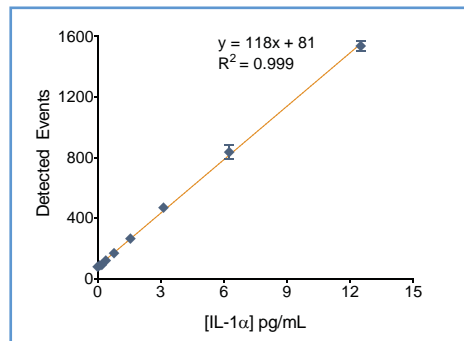


FIGURE 2: Erenna® IL-1α Immunoassay Kit low-end standard curve signal (left) and curve fit (above).

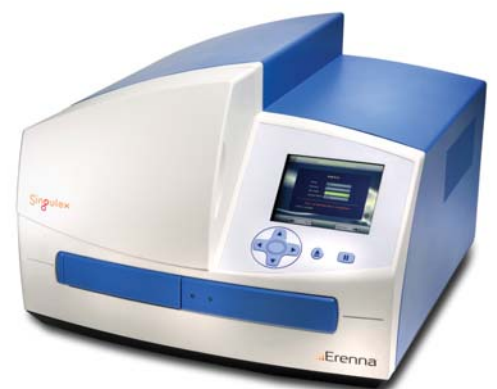
TABLE 1: Analytical sensitivity of the Erenna® IL-1α Immunoassay Kit<sup>1</sup>

|   |                   |
|---|-------------------|
| Lower Limit of Detection                    | 0.25 pg/mL        |
| Lower Limit of Quantification <sup>2</sup>  | 0.39 pg/mL        |
| Upper Limit of Quantification               | 100 pg/mL         |
| Low-end CV% Range                           | 2 - 19%           |
| Low-end CV% Average                         | 7%                |
| Recommended Sample Volume                   | 100 μL            |
| Minimum Sample Volume Required <sup>3</sup> | 50 μL             |
| Matrices Validated                          | human EDTA plasma |

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

<sup>2</sup> LLoQ ≤ 20% CV and ± 20% recovery

<sup>3</sup> based upon median [IL-1α] in a healthy reference population



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