Interleukin-1 Alpha

Mouse, Recombinant (rmIL-1α)
Expressed in E. coli
Cat. No. CRP0831
Lot. No. (See product label)

PRODUCT INFORMATION

Description: IL-1α is distinct from the other agonist member of the IL-1 family, IL-1β. Although IL-1α triggers the same IL-1 receptor and although many of the biological effects of IL-1α are similar to those of IL-1α, in humans IL-1α is predominantly an intracellular molecule. In fact, there is evidence that IL-1α has both intracellular functions as a precursor molecule due to a nuclear localization sequence. IL-1α as an unprocessed precursor is biologically as active as the processed form. IL-1α is also found constitutively in epithelial cells, whereas constitutive expression of IL-1β is rare. In many ways, IL-1α appears to be closer to the fibroblast growth factor family than the secreted IL-1β form.

Therapeutic strategies for blocking IL-1β predominate over those for blocking IL-1α. Many humans have circulating neutralizing antibodies to IL-1α but not IL-1β.

Amino-Acid Sequence: 156aa (The sequence of the first five N-terminal amino acids was determined and was found to be Ser-Ala-Pro-Tyr-Thr.), non-glycosylated.

M. W.: 18,000 Da

Recombinant: Expressed in E. coli

Purity: >98% as determined by RP-HPLC, FPLC and SDS-PAGE.

Formulation: Mouse IL-1α was lyophilized after extensive dialysis against PBS.

Specific Activity: The ED50 as determined by the dose-dependent stimulation of mouse D10S cells was found to be less than 0.01 ng/ml, corresponding to a Specific Activity of 1.0 x 10^8 IU/mg.

Endotoxin: Less than 0.1ng/µg (1 IEU/µg) of IL-1α.

Reconstitution: It is recommended to reconstitute the lyophilized rmIL-1α in sterile 18MΩ-cm H2O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

Storage: Lyophilized rmIL-1α although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution rmIL-1α should be stored at 4°C between 2-7 days and for future use below -18°C. For long-term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Aliquot to avoid repeated freeze-thaw cycles.

REFERENCES


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