

IL-33, Human

Cat. No.: Z03198-1

Size: 1.0 mg

Synonyms: IL-1F11, NF-HEV

Description:

Interleukin-33 (IL-33) is a proinflammatory cytokine that belongs to the IL-1 family. IL-33 is expressed in a variety of cells, including epithelial and endothelial cells, smooth muscle cells, macrophages and fibroblasts. The primary receptors for IL-33 are ST2 and IL-1 receptor accessory protein (IL-1RAcP), both of which belong to the IL-1 receptor family. IL-33 is localized to the nucleus of resting cells where it binds to chromatin in the H2A-H2B histone complex as a transcriptional suppressor. IL-33 is secreted by cells during injury which induces a T-helper 2 type inflammatory response. Evidence suggests IL-33 plays a role in autoimmune disease. IL-33's interaction with ST2 can drive allergic pathology and IL-33 has been reported to play a role in the development of rheumatoid arthritis and systemic lupus erythematosus. Recombinant human Interleukin-33 (rhIL-33) produced in *E. coli* is a single non-glycosylated polypeptide chain containing 159 amino acids. A fully biologically active molecule, rhIL-33 has a molecular mass of 18.0 kDa analyzed by reducing SDS-PAGE and is obtained by proprietary chromatographic techniques at GenScript.

Amino Acid Sequence:

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00001 SITGISPITE YLASLSTYND QSITFALEDE SYEIVVEDLK
00041 KDEKKDKVLL SYYESQHPSN ESGDGVGDKM LMTLSPTKD
00081 FWLHANNKEH SVELHKCEKP LPDQAFFVLH NMHSNCVSFE
00121 CKTDPGVFIG VKDNHLALIK VDSSENLCTE NILFKLSET
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Source: *E. coli*

Species: Human

Biological Activity: ED₅₀ <0.5ng/mL, measured by a cell proliferation assay using D10S cells, corresponding to a specific activity of > 2× 10⁶ units/mg.

Molecular Weight: 18.0 kDa, observed by reducing SDS-PAGE.

Formulation: Lyophilized after extensive dialysis against PBS.

Reconstitution: Reconstituted in ddH₂O at 100 µg/mL.

Purity: > 95% by SDS-PAGE analysis.

Endotoxin Level: < 0.2 EU/µg, determined by LAL method.

Storage: Lyophilized recombinant human Interleukin-33 (rhIL-33) remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution, rhIL-33 remains stable up to 2 weeks at 4°C or up to 3 months at -20°C.