



Technical Data Sheet

Recombinant Rat Interleukin-33 (rRtIL-33)

Rat Interleukin-33

Interleukin-33 (IL-33), also known as NF-HEV and DVS 27, is a cytokine belonging to the IL-1 superfamily. It is also a proinflammatory protein that may regulate gene transcription and it induces helper T cells, mast cells, eosinophils and basophils to produce type 2 cytokines. The induction of type 2 cytokines by IL-33 in vivo is believed to induce the severe pathological changes observed in mucosal organs following administration of IL-33. IL-33 is constitutively expressed in smooth muscle and airway epithelia and it binds to a high-affinity receptor family member ST2. In vivo administration of mature IL-33 promotes increased production of IL-5, IL-13, IgE, and IgA, as well as splenomegaly and inflammatory infiltration of mucosal tissues. Recombinant rat IL-33 contains 156 amino acid residues and it shares 59 % a.a. and 90 % sequence identity with human and murine IL-33.

Catalog Number:	RC252-44
Source:	<i>Escherichia coli</i> .
Molecular Weight:	Approximately 17.4 kDa, a single non-glycosylated polypeptide chain containing 156 amino acids.
Quantity:	2µg/10µg/1000µg
AA Sequence:	SIQGTSLLTE SCALSTYNDQ SVSFVLENGC YVINVEDCGK NOEKDKVLLR YYESSFPAQS GDGVDGKKLM VNMSPKDTD IWLNANDKDY SVELQKGDVS PPDQAFFVLH KKSSDFVSFE CKNLPGTYIG VKDNQLALVE ENDESCNNIM FKLSKM
Purity:	> 95 % by SDS-PAGE and HPLC analyses.
Biological Activity:	Fully biologically active when compared to standard. The ED ₅₀ as determined by a cell proliferation assay using murine D10S cells is less than 0.5 ng/ml, corresponding to a specific activity of > 2.0 × 10 ⁶ IU/mg.
Physical Appearance:	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation:	Lyophilized from a 0.2 µm filtered concentrated solution in 20 mM Tris, 300 mM NaCl, pH 8.5.
Endotoxin:	Less than 1 EU/µg of rRtIL-33 as determined by LAL method.
Reconstitution:	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions



should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.

Storage: This lyophilized preparation is stable at 2-8 °C, but should be kept at -20 °C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8 °C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20 °C to -70 °C. Avoid repeated freeze/thaw cycles.

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