

Recombinant Rat Interleukin-33

#R00313

Size: 10 µg/100 µg/500 µg

Stability & Storage

Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, -20 to -70 °C as supplied.

- 1 month, 2 to 8 °C under sterile conditions after reconstitution.

- 3 months, -20 to -70 °C under sterile conditions after reconstitution.



Warning: This product is intended for scientific research only. It is not to be used for medical or diagnostic procedures in humans or animals, nor as a food, cosmetic, or household product.

Background

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-3 contains 156 amino acid residues and it shares 59 % a.a. and 90 % sequence identity with human and murine IL-33.

AA Sequence

SIQGTSLLETSCALSTYNDQSVSFVLENGCYVINVED
CGKNQEKKDKVLLRYYESSFPAQSGDGVGKKLMVN
MSPIKDTDIWLNANDKDYSVELQKGDVSPPDQAFFV
LHKKSSDFVSFECKNLPGTYIGVKDNQLALVEENDES
CNNIMFKLSKM

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.

Product Specification

Synonyms	IL-33
Accession	Q66H70
GeneID	361749
Species	Rat
Source	Escherichia coli.
Molecular Weight	Approximately 17.4 kDa, a single non-glycosylated polypeptide chain containing 156 amino acids.
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	Sterile Filtered White lyophilized
Appearance	(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.