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II33

Recombinant Rat Interleukin-33

Catalog No. CS501A Quantity: 2 μg

CS501B 10 μg CS501C 1 mg

Alternate Names: IL-33

Description: 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 is a single non-glycosylated polypeptide chain containing 156 amino acid residues that shares 59 % aa and 90% sequence identity with human and

mouse IL-33. The product does not contain an affinity tag.

Gene ID: 361749 **Source:** *E. coli*

Molecular Weight: 17.4 kDa (156 aa) monomer

Formulation: Lyophilized from sterile-filtered 20 mM Tris, 300 mM NaCl, pH 8.5

Purity: > 95 % by SDS-PAGE and HPLC analyses. Endotoxin Level: < 1 EU/μg as determined by LAL method.

Biological Activity: $ED_{50} < 0.05$ ng/ml, determined by a cell proliferation assay using mouse D10S cells.

Specific Activity: $\geq 2.0 \times 10^6 \text{ IU/mg.}$

Amino Acid Sequence: SIQGTSLLTE SCALSTYNDQ SVSFVLENGC YVINVEDCGK NQEKDKVLLR

YYESSFPAQS GDGVDGKKLM VNMSPIKDTD IWLNANDKDY SVELQKGDVS

PPDQAFFVLH KKSSDFVSFE CKNLPGTYIG VKDNQLALVE ENDESCNNIM FKLSKM

Reconstitution: Centrifuge vial prior to opening. Add sterile distilled water or aqueous buffer

containing 0.1% BSA to a concentration of 0.1-1.0 mg/ml. Further dilution should be

made in appropriate buffered solutions.

Storage & Stability: This lyophilized preparation is stable at 2-8°C, but should be stored

at -20°C to -80°C for long term storage. Upon reconstitution, the preparation

is stable for up to one week at 2-8°C. For maximal stability, apportion the reconstituted

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preparation into working aliquots and store at -20°C to -80°C.

Avoid repeated freeze/thaw cycles.

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