



Interleukin-33, rat recombinant (rrIL-33)

Catalog No: 97510
Lot No: XXXXX
Source: *E. coli*
Synonyms: Interleukin 33, DVS27, NF-HEV, NKHEV, C9orf26, Interleukin-1 family member 11, IL-1F11, Nuclear factor from high endothelial venules, NFEHEV, DKFZp586H0523, RP11-575C20.2, IL-33

Background

Interleukin 33 (IL-33) is a 32 kDa proinflammatory cytokine that may also regulate gene transcription in producer cells. IL-33 is structurally related to IL-1, which induces helper T cells to produce type 2 cytokines and acts through the receptor IL1RL1 (IL1 receptor-like-1), which is known also as ST2. Binding of IL-33 to this receptor activates NF-kappa-B and MAP kinases and induces in vitro Th2 cells to produce cytokines. In vivo, IL-33 induces expression of IL-4, IL-5, IL-13 and leads to severe pathological changes in mucosal organs and in vitro, it can be divided to N-terminal fragment of 12 kDa and C-terminal fragment of 18 kDa by cleavage of caspase-1.

Description

Interleukin-33 rat recombinant produced in *E. coli* is a single, non-glycosylated, polypeptide chain containing 156 amino acids and having a molecular mass of 17.4 kDa. IL-33 is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

Formulation

Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4.

Solubility

It is recommended to reconstitute the lyophilized Interleukin-33 in sterile 18 MΩ-cm H₂O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Stability

Lyophilized IL-33, although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution IL-33 should be stored at 4°C between 2-7 days and for future use below -18°C. Please prevent freeze-thaw cycles.

Purity

Greater than 95.0% as determined by SDS-PAGE.

Amino Acid Sequence

SIQGTSLLTE SCALSTYNDQ SVSFVLENGC YVINVEDCGK NQEKDKVLLR YYESSFPAQS GDGVDGKKLM VNMSPIKDTD
IWLNANDKDY SVELQKGDVS PPDQAFFVLH KKSSDFVSFE CKNLPGTYIG VKDNQLALVE ENDESCNNIM FKLSKM

Activity

The ED50 was determined by the dose-dependent stimulation of the proliferation of murine D10S cells is <0.5 ng/ml, corresponding to a specific activity of >2,000,000 units/mg.

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