



Interleukin-33, mouse recombinant (rmIL-33)

Catalog No: 97269
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, Il-33, Il1f11, 9230117N10Rik, Il33

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 IL1RL-1 (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 mouse recombinant produced in *E. coli* is a single, non-glycosylated, polypeptide chain containing 158 amino acids and having a molecular mass of 17.5 kDa.

Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

Formulation

Mouse IL-33 was lyophilized from a concentrated (1 mg/ml) solution containing 20 mM phosphate buffer pH 7.4, 150 mM sodium chloride, 1 mM EDTA and 2 mM b-ME.

Solubility

It is recommended to reconstitute the lyophilized Interleukin-33 in sterile 18 M Ω -cm H₂O not less than 100 μ g/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 97.0% as determined by (a) Analysis by RP-HPLC, (b) Analysis by SDS-PAGE.

Amino Acid Sequence

SIQGTSLLTQ SPASLSTYND QSVSFVLENG CYVINVDDSG KDQEQDQVLL RYYESPCPAS QSGDGVGKK LMVNMSPIKD
TDIWLHANDK DYSVELQRGD VSPPEQAFFV LHKKSSDFVS FECKNLPPTY IGVKDNQLAL VEEKDESCNN IMFKLSKI

Activity

The ED₅₀ as 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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