

Recombinant Mouse Interleukin-33 (rm IL-33)

Synonyms: Interleukin-1 family member 11 (IL1F11), Nuclear factor from high endothelial venules (NF-HEV), DVS27, NKHEV

Introduction: Interleukin 33 (IL-33) is a 32kDa 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 also 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 12kDa and C-terminal fragment of 18kDa by cleavage of caspase-1.

Description: Recombinant mouse IL-33 produced in E.Coli is a single, non-glycosylated polypeptide chain containing 158 amino acids and having a molecular mass of 17.5 kDa.

Source: *Escherichia coli*

Physical Appearance: Sterile filtered white lyophilized (freeze-dried) powder.

Formulation: Lyophilized from a concentrated (1mg/ml) solution containing 20mM Phosphate buffer pH-7.4, 150mM sodium chloride, 1mM EDTA and 2mM β -ME.

The aliquots of 1 μ g and 2 μ g contain Trehalose 5% (w/vol) for better recovery.

Solubility: It is recommended to reconstitute the lyophilized IL-33 in sterile 18M Ω -cm H₂O not less than 100 μ g/ml, which can then be further diluted to other aqueous solutions.

Stability: Lyophilized rm IL-33 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution rm IL-33 should be stored at 4°C between 2-7days, for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). 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 LMVNMSPDK TDIWLHANDK DYSVELQRGD VSPPEQAFFV LHKKSSDFVS FECKNLPPTY IGVKDNQLAL VEEKDESCNN IMFKLSKI

Biological Activity: The ED₅₀ as determined by the dose-dependent stimulation of the proliferation of murine D10S cells is \leq 0.5ng/ml, corresponding to a specific activity of 2×10^6 units/mg.

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<i>small</i>	2 μ g	Cat.N°	12340332
<i>medium</i>	10 μ g	Cat.N°	12340333

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Gladiolenweg 2; 26169 Friesoythe; Germany
 phone:+49-(0)4491-400997, fax:+49-(0)4491-400998, info@immunotools.com
www.immunotools.com