

Recombinant Mouse Interleukin-33 (rm IL-33 / IL1F11)

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 sterile 0.2 µm filtered solution in PBS, 2 mM Mercaptoethanol

Solubility: It is recommended to reconstitute the lyophilized IL-33 in sterile 18MΩ-cm H2O not less than 100µg/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 95.0% as determined by SDS-PAGE (silver stain).

Amino acid sequence: SIQGTSLLTQSPASLSTYND QSVSFVLENGCYVINVDDSG
KDQEQQVLLRYYESPCPAS QSGDGVGKMLMVMNSPIKD TDIWLHANDKDYSVELQRGD
VSPPEQAFFVLHKKSSDFVS FECKNLPGTIYGVKDNQLAL VEEKDESCNNIMFKLSKI

Biological Activity: The ED₅₀ as determined by the dose-dependent stimulation of the proliferation of murine D10S cells is ≤ 0.5ng/ml, corresponding to a specific activity of 2×10⁶ units/mg.

Endotoxicity: The endotoxin level is less than 1 EU / µg determined by LAL method.

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<i>small</i>	2 µg	Cat.N°	12340332
<i>medium</i>	10 µg	Cat.N°	12340333
<i>large</i>	50 µg	Cat.N°	12340335
<i>x-large</i>	250 µg	Cat.N°	12340337

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