

Recombinant Rat Interleukin-33 (rr IL-33/IL1F11)

Synonyms: NF-HEV, c9orf26, interleukin-1 family member 11

Introduction: Rat Interleukin 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 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 Rat IL 33 produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 156 amino acids and having a molecular mass of 17.4kDa. The IL 33 is purified by proprietary chromatographic techniques.

Source: *Escherichia Coli*.

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

Formulation: Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4
The aliquotes of 1µg and 2µg contain Trehalose 5% (w/vol) for better recovery

Solubility: It is recommended to reconstitute the lyophilized rr IL-33 in sterile water not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Stability: Lyophilized rr IL-33 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution rr IL-33 should be stored 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 VNMSPKDTD IWLNANDKDY SVELQKGDVS PPDQAFFVLH KKSSDFVSFE
CKNLPGTYIG VKDNQLALVE ENDESCNNIM FKLSKM

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

Biological Activity: Determined by the dose-dependent stimulation of the proliferation of murine D10S cells is less than 0.5ng/ml, corresponding to a specific activity of >2 x 10⁶ IU/mg.

This material is offered for **research use only**. Not for use in human. For in vitro use only. ImmunoTools will not be held responsible for patent infringement or other violations that may occur with the use of our products.

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| <i>small</i> | 2 µg | Cat.N° | 13340332 |
| <i>medium</i> | 10 µg | Cat.N° | 13340333 |

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