

Recombinant Mouse IL-33 (carrier-free)

Catalog # / Size: 580502 / 10 µg
580504 / 25 µg
580506 / 100 µg
580508 / 500 µg

Source: Mouse IL-33, amino acids Ser109-Ile266 (Accession # NM_133775) was expressed in *E. coli*.

Molecular Mass: The 158 amino acid recombinant protein has a predicted molecular mass of approximately 17,554 Da. The DTT-reduced and non-reduced protein migrate at approximately 20 kDa by SDS-PAGE. The N-terminal amino acid is Serine.

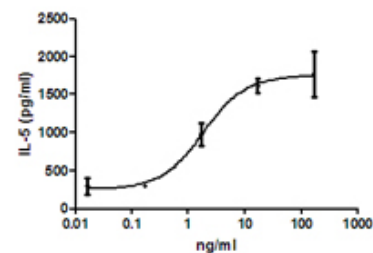
Purity: Purity is > 98%, as determined by Coomassie stained SDS-PAGE.

Endotoxin Level: Endotoxin level is < 0.1 EU/µg (< 0.01ng/µg) protein as determined by the LAL method.

Preparation: 10 - 100 µg sizes are bottled at 200 µg/mL. 500 µg sizes and larger are bottled at the concentration indicated on the vial.

Formulation: 0.22 µm filtered protein solution is in 20mM HEPES, 150mM NaCl, pH 7.2, 10mM TCEP

Storage: Unopened vial can be stored at 4°C for three months, at -20°C for six months, or at -70°C for one year. For maximum results, quick spin vial prior to opening. Stock solutions should be prepared at no less than 10 µg/mL in buffer containing carrier protein such as 1% BSA or HSA or 10% FBS. For long term-storage, aliquot into polypropylene vials and store in a manual defrost freezer. **Avoid repeated freeze/thaw cycles.**



IL-5 induction by mouse IL-33 in splenocytes activated by anti-CD3 and anti-CD28. Data kindly provided Dr. Foo Y. Liew.

Applications:

Applications: Bioassay

Application References:

1. Miller AM, *et al.* 2010. *Circ Res.* 107:650. PubMed
2. Zaiss MM, *et al.* 2011. *J. Immunol.* 186:6097. PubMed.
3. Barlow JL, *et al.* 2012. *J Allergy Clin Immunol.* 129:191. PubMed
4. Rosen MJ, *et al.* 2013. *J. Immunol.* 190:1849. PubMed

Description: IL-33 belongs to the IL-1 family and is closely related in structure to IL-18 and IL-1b. IL-33, IL-1b, and IL-18 are synthesized as biologically inactive precursor and are cleaved by the enzyme caspase-1 to be secreted as active mature forms. IL-33 stimulates target cells by binding to the IL-1R/TLR superfamily member ST2 and subsequently activates NF-κB and MAPK pathways via identical signalling events to those observed for IL-1b. In addition, IL-33 is a nuclear factor (NF-HEV) abundantly expressed in high endothelial venules from lymphoid organs that associates with chromatin and exhibits transcriptional regulatory properties.

Antigen References:

1. Schmitz J, *et al.* *Immunity* 2005 23:479-490.
2. Barksby HE, *et al.* *C Exp Immunol* 2007 149:217-225.
3. Arend WP, *et al.* *ImmRev* 2008 223:20-38.
4. Suzukawa M, *et al.* *J. Immunol.* 2008 181:5981-5989.
5. Moussio C, *et al.* *PlosOne* 2008 10:e3331.



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