Human IL-33 Protein, His Tag (HPLC verified)

Catalog # IL3-H52H7

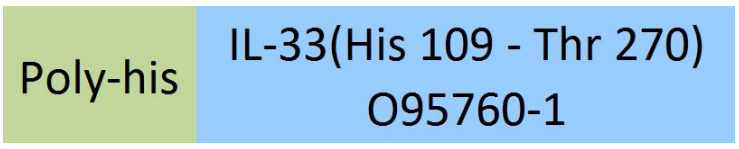
Synonym

IL33,DV27,C9ORF26,IL1F11,NFHEV,DKFZp586H0523,DVS27,NFEHEV,RP11-575C20.2

Source

Human IL-33 Protein, His Tag(IL3-H52H7) is expressed from human 293 cells (HEK293). It contains AA His 109 - Thr 270 (Accession # O95760-1).
Predicted N-terminus: His

Molecular Characterization



This protein carries a polyhistidine tag at the N-terminus.

The protein has a calculated MW of 20.2 kDa. The protein migrates as 25-30 kDa when calibrated against Star Ribbon Pre-stained Protein Marker under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 0.1 EU per μg by the LAL method.

Sterility

Negative

Mycoplasma

Negative.

Purity

>95% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 μm filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

Storage

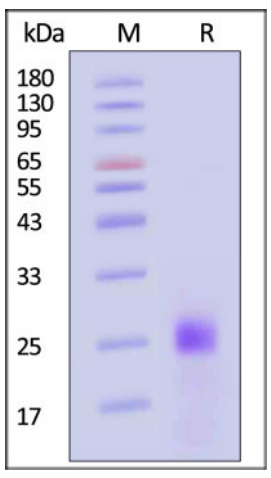
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE

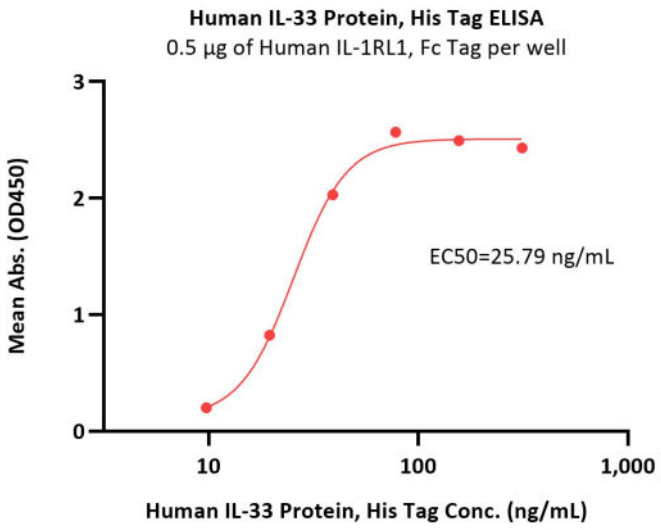


Human IL-33 Protein, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With Star Ribbon Pre-stained Protein Marker).

SEC-HPLC

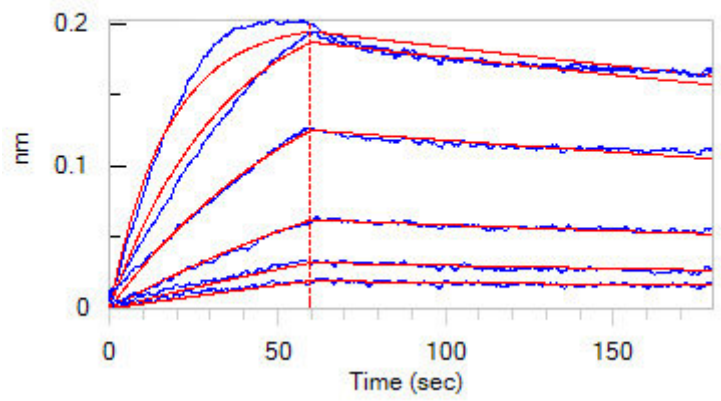
The purity of Human IL-33 Protein, His Tag (Cat. No. IL3-H52H7) was greater than 85% as determined by SEC-HPLC.

Bioactivity-ELISA



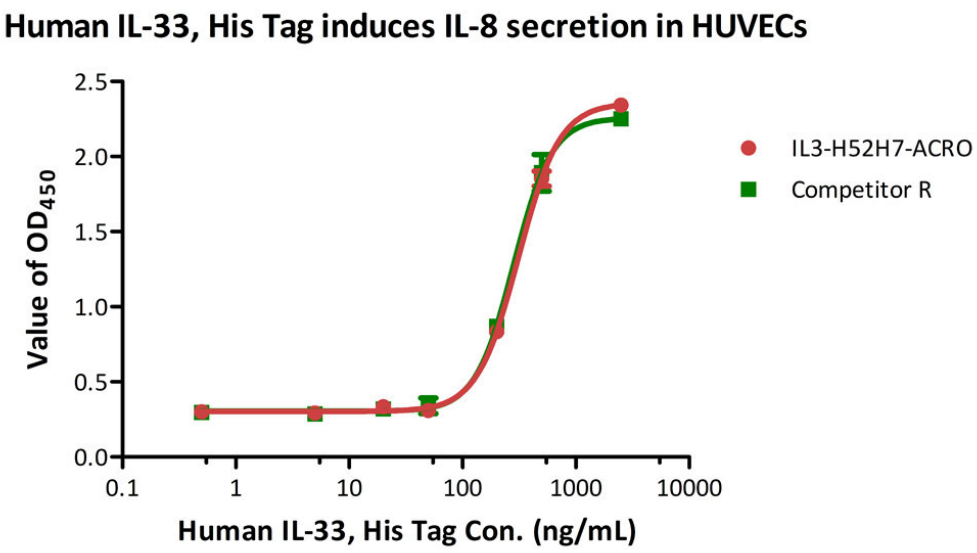
Immobilized Human IL-1RL1, Fc Tag (Cat. No. IL1-H5250) at 5 μg/mL (100 μL/well) can bind Human IL-33 Protein, His Tag (Cat. No. IL3-H52H7) with a linear range of 5-40 ng/mL (QC tested).

Bioactivity-BLI



Loaded Human IL-1RL1, Fc Tag (Cat. No. IL1-H5250) on Protein A Biosensor, can bind with Human IL-33 Protein, His Tag (Cat. No. IL3-H52H7) an affinity constant of 1.31 nM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).

Bioactivity-Bioactivity CELL BASE



Human IL-33 Protein, His Tag (Cat. No. IL3-H52H7) induces IL-8 secretion in HUVECs. The EC50 for this effect is 193.0-311.8 ng/mL (Routinely tested).

Background

Interleukin 33 (IL33) is known as C9orf26, DKFZp586H0523, DVS27, NF-HEV, NFEHEV, RP11-575C20.2,and is a cytokine belonging to the IL-1 superfamily. IL-33 induces helper T cells, mast cells, eosinophils and basophils to produce type 2 cytokines. IL-33 mediates its biological effects by interacting with the receptors ST2 (aka IL1RL1) and IL-1 Receptor Accessory Protein (IL1RAP), activating intracellular molecules in the NF-κB and MAP kinase signaling pathways that drive production of type 2 cytokines (e.g. IL-5 and IL-13) from polarized Th2 cells. In vivo, IL-33 induces the expression of IL-4, IL-5, and IL-13 and leads to severe pathological changes in mucosal organs.

Clinical and Translational Updates