

Human oxidized IL-33/IL-33^{ox} Protein

Cat. No. IL3-HM10X

Description

Source	Recombinant Human IL-33 ^{ox} Protein is expressed from HEK293 with His tag at the N-terminus. It contains His109-Thr270.
Accession	NP_254274.1
Molecular Weight	The protein has a predicted MW of 19.43 kDa. Due to glycosylation, the protein migrates to 25-30 kDa based on Bis-Tris PAGE result.
Endotoxin	Less than 0.1 EU per µg by the LAL method.
Purity	> 95% as determined by Bis-Tris PAGE > 90% as determined by HPLC

Formulation and Storage

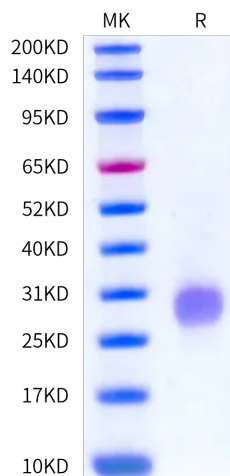
Formulation	Lyophilized from 0.22 µm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
Reconstitution	Dissolve the lyophilized protein in distilled water. Please refer to the Certificate of Analysis for detailed instructions.
Storage	-20 to -80°C for 12 months as supplied from date of receipt. -80°C for 3 months after reconstitution. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.

Background

Interleukin (IL)-33 released from damaged airway epithelia causes inflammation via its receptor, serum stimulation-2 (ST2). Oxidation of IL-33 to a non-ST2-binding form (IL-33^{ox}) is thought to limit its activity. IL-33^{ox} forms a complex with receptor for advanced glycation end products (RAGE) and epidermal growth factor receptor (EGFR) expressed on airway epithelium. IL-33^{ox} increased the proportion of mucus-producing cells and reduced epithelial defence functions, mimicking pathogenic traits of COPD. Neutralisation of the IL-33^{ox} pathway reversed these deleterious traits in COPD epithelia.

Assay Data

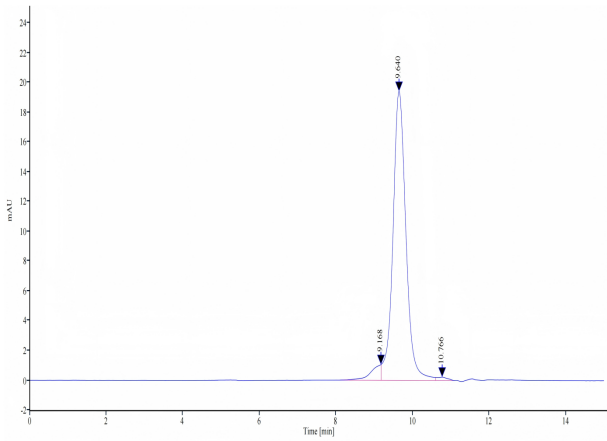
Bis-Tris PAGE



Human IL-33^{ox} on Bis-Tris PAGE under reduced condition. The purity is greater than 95%.

SEC-HPLC

Assay Data



The purity of Human IL-33^{ox} is greater than 90% as determined by SEC-HPLC.

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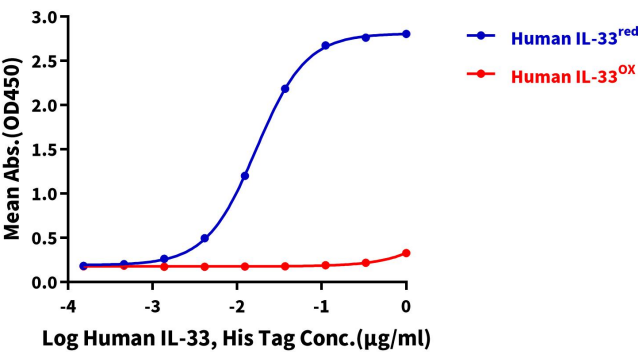


Assay Data

ELISA Data

Human IL-33, His Tag ELISA

0.1µg Human IL-1RL1, hFc Tag Per Well

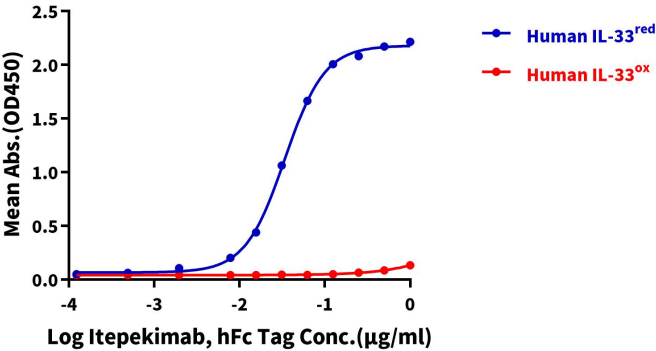


Immobilized Human IL-1RL1, hFc Tag (Cat. ST2-HM2L1) at 1µg/ml (100µl/well) on the plate. Dose response curve for Human IL-33^{red}, His Tag with the EC50 of 23.5ng/ml and not bind Human IL-33^{ox}, His Tag determined by ELISA.

ELISA Data

Human IL-33, His Tag ELISA

0.05µg Human IL-33, His Tag Per Well



Immobilized Human IL-33, His Tag at 0.5µg/ml (100µl/well) on the plate. Dose response curve for Itipekimab, hFc Tag with the EC50 of 38.5ng/ml for Human IL-33^{red} and not bind Human IL-33^{ox} determined by ELISA.