

# Human IL-1RL1 (IL-33R) Protein; hFc Tag

## Product Information

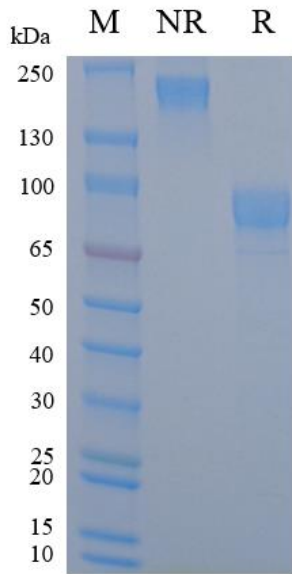
<b>Product Name</b>	Human IL-1RL1(IL-33R) Protein; hFc Tag
<b>Storage temp</b>	Store at $\leq -70^{\circ}\text{C}$ , stable for 6 months after receipt. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.
<b>Catalog# / Size</b>	<b>GM-88162RP-100 / 100 <math>\mu\text{g}</math></b> <b>GM-88162RP-1000 / 1 mg</b>

## Protein Information

<b>Alternative Names</b>	IL1RL1, DER4, FIT-1, IL33R, ST2, ST2L, ST2V, T1
<b>Source</b>	Human IL-1RL1(IL-33R) Protein; hFc Tag (GM-88162RP) is expressed from human 293 cells (HEK-293). It contains AA Lys 19 - Pro 323 (Accession # NP_003847). This protein carries a human IgG1 Fc tag at the C-terminus.
<b>Purity</b>	> 95% as determined by SDS-PAGE
<b>Endotoxin</b>	< 1 EU/ $\mu\text{g}$ , determined by LAL gel clotting assay
<b>Predicted Mol Mass</b>	60.3 KDa
<b>Formulation</b>	Supplied as a 0.2 $\mu\text{m}$ filtered solution of PBS, pH7.2-7.4.
<b>Description</b>	IL-1 receptor-like 1 (IL1RL1), known as ST2, belongs to the IL-1 receptor superfamily. ST2 has two main isoforms: transmembrane ST2L (receptor) and soluble sST2 (decoy regulating IL-33 signaling). IL1RL1/ST2 is mainly expressed in immune cells (Th2, mast cells, eosinophils, ILCs) and in endothelial/epithelial tissues. The ST2/IL-33 axis promotes type 2 immunity, tissue repair, and inflammation; its dysregulation links to asthma, allergic rhinitis, and cardiovascular diseases. IL-33 binding to ST2L recruits IRAK and MyD88, activating NF- $\kappa\text{B}$ , MAPKs (p38, JNK, ERK), and AP-1, driving transcription of type 2 cytokines (IL-4, IL-5, IL-13) and chemokines to recruit eosinophils and enhance mucus production. sST2 sequestration of IL-33 dampens ST2L signaling. Some ST2L-independent signaling occurs in certain cells, with crosstalk to other TLR/IL-1 pathways adding complexity. Dysregulated IL-33/ST2 signaling contributes to chronic inflammation and fibrosis, making it a therapeutic target.

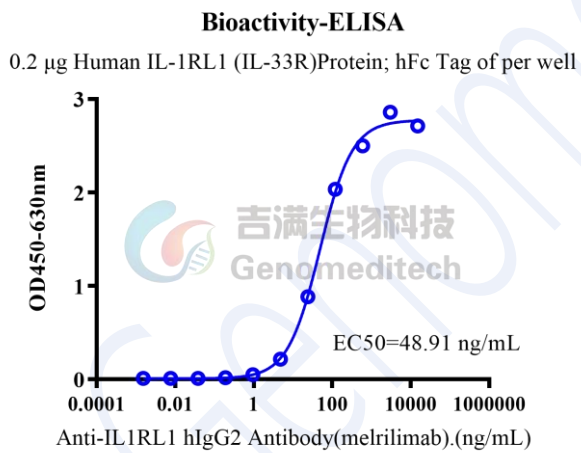
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## SDS-PAGE



On SDS-PAGE under non-reducing (NR) condition and reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.

## Bioactivity-ELISA



Human IL-1RL1(IL-33R) Protein; hFc Tag (Catalog # GM-88162RP) was immobilized at 2  $\mu$ g/ml (100  $\mu$ L/well). Increasing concentrations of Anti-IL1RL1 hIgG2 Antibody(melrilimab) (Catalog # GM-88366AB) were added.