

Synonym

CD121b,IL1RB,IL1R2,CDw121b

Source

Human IL-1 RII, Fc Tag(IL2-H4256) is expressed from human 293 cells (HEK293). It contains AA Phe 14 - Glu 343 (Accession # NP_004624.1). Predicted N-terminus: Phe 14

Molecular Characterization

IL-1 RII(Phe 14 - Glu 343) Fc(Pro 100 - Lys 330)
NP_004624.1 P01857

This protein carries a human IgG1 Fc tag at the C-terminus.

The protein has a calculated MW of 63.9 kDa. The protein migrates as 70 kDa when calibrated against <u>Star Ribbon Pre-stained Protein Marker</u> under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 1.0 EU per µg by the LAL method.

Purity

>95% as determined by SDS-PAGE.

Formulation

Lyophilized from $0.22 \mu m$ filtered solution in 50 mM Tris, 100 mM Glycine, 150 mM NaCl, pH7.5 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

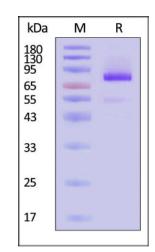
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

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

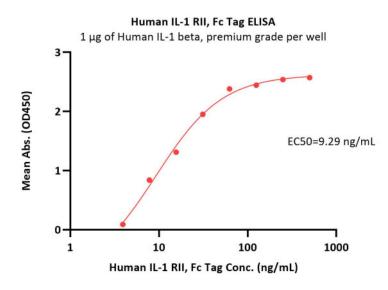


Human IL-1 RII, Fc Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With <u>Star Ribbon Pre-stained Protein Marker</u>).

Bioactivity-ELISA

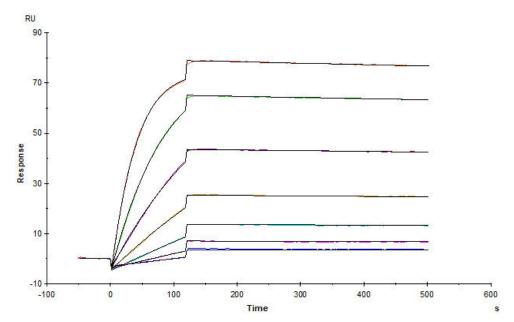




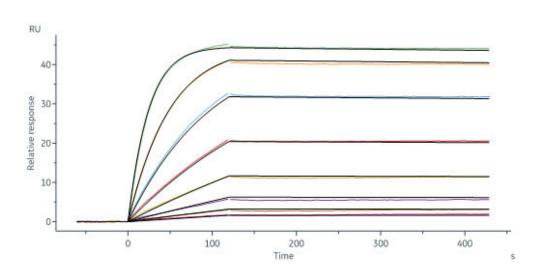


Immobilized Human IL-1 beta, premium grade (Cat. No. ILB-H4110) at 10 μ g/mL (100 μ L/well) can bind Human IL-1 RII, Fc Tag (Cat. No. IL2-H4256) with a linear range of 4-63 ng/mL (QC tested).

Bioactivity-SPR



Human IL-1 RII, Fc Tag (Cat. No. IL2-H4256) captured on CM5 chip via antihuman IgG Fc antibodies surface can bind Human IL-1 beta, premium grade (Cat. No. ILB-H4110) with an affinity constant of 0.622 nM as determined in a SPR assay (Biacore T200) (Routinely tested).



Human IL-1 RII, Fc Tag (Cat. No. IL2-H4256) captured on CM5 chip via Antihuman IgG Fc antibodies surface can bind Human IL-1 beta, His Tag (Cat. No. ILB-H51H3) with an affinity constant of 0.571 nM as determined in a SPR assay (Biacore 8K) (Routinely tested).

Background

Interleukin-1 receptor type 2 (IL1R2) is also known as CD121 antigen-like family member B (CDw121b), IL-1 type II receptor, Interleukin-1 receptor type II, belongs to the interleukin-1 receptor family. Two distinct types of IL1 receptors which are able to bind IL1 specifically have been identified, designated as IL1RI (IL1RA) and IL1RII (IL1RB). IL1R2 is non-signaling receptor for IL1A, IL1B and IL1RN, reduces IL1B activities. Serves as a decoy receptor by competetive binding to IL1B and preventing its binding to IL1R1. IL1R2 modulates cellular response through non-signaling association with IL1RAP after binding to IL1B. IL1R2 (membrane and secreted forms) preferentially binds IL1B and poorly IL1A and IL1RN. The secreted IL1R2 recruits secreted IL1RAP with high affinity; this complex formation may be the dominant mechanism for neutralization of IL1B by secreted/soluble receptors.

Clinical and Translational Updates

