

Human IL-1RAP Protein; His Tag

Product Information

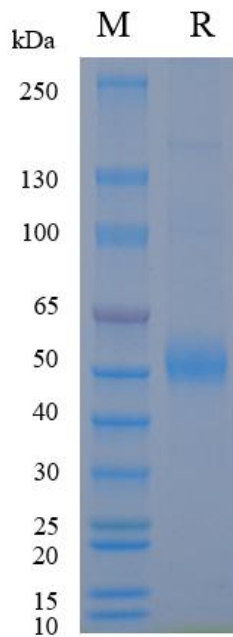
Product Name	Human IL-1RAP Protein; His Tag
Storage temp	Store at $\leq -70^{\circ}\text{C}$, stable for 6 months after receipt. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.
Catalog# / Size	GM-88257RP-100 / 100 μg GM-88257RP-1000 / 1 mg

Protein Information

Alternative Names	IL1RAP, IL-1RAcP, C3orf13, IL1R3
Source	Human IL-1RAP Protein; His Tag (GM-88257RP) is expressed from human 293 cells (HEK-293). It contains AA Ser 21 - Glu 359 (Accession # Q9NPH3-1). This protein carries a His tag at the C-terminus.
Purity	> 90% as determined by SDS-PAGE
Endotoxin	< 1 EU/ μg , determined by LAL gel clotting assay
Predicted Mol Mass	41.1 KDa
Formulation	Supplied as a 0.2 μm filtered solution of PBS, pH7.2-7.4.
Description	<p>IL1RAP is a type I transmembrane protein in the IL-1 receptor superfamily. It is widely expressed, especially in immune-related cells like macrophages, dendritic cells, and endothelial cells. As a co-receptor with IL-1R1, IL1RAP forms a high-affinity receptor complex to propagate IL-1-mediated signals. It has an extracellular ligand-binding domain, a single transmembrane helix, and a cytoplasmic tail that recruits MyD88 to trigger downstream signaling. Functionally, IL1RAP amplifies IL-1β/IL-1α signaling, linking to inflammation, immune activation, and fever.</p> <p>IL1RAP participates in the canonical MyD88-dependent IL-1 signaling. IL-1β/IL-1α binding to IL-1R1 promotes the receptor-ligand-co-receptor complex, enabling MyD88 recruitment. This activates IRAK4/IRAK1, propagating via TRAF6 to TAK1, which then activates IKK and MAPKs. This leads to IκBα degradation, NF-κB nuclear translocation, and MAPK phosphorylation (p38, JNK, ERK), driving transcription of pro-inflammatory cytokines (e.g., IL-6, IL-8, TNF-α). IL1RAP can also engage in cross-talk with other pathways (e.g., TLR signaling) to modulate inflammation and tissue repair. Overall, IL1RAP enhances IL-1 signaling and supports immune surveillance and homeostasis.</p>

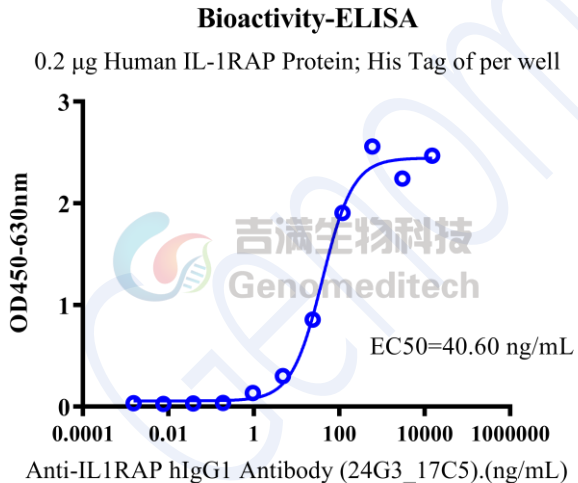
Version:4.0

SDS-PAGE



On SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 90%.

Bioactivity-ELISA



Human IL-1RAP Protein; His Tag (Catalog # GM-88257RP) was immobilized at 2 µg/ml (100 µL/well). Increasing concentrations of Anti-IL1RAP hIgG1 Antibody (24G3_17C5) (Catalog # GM-88261AB) were added.