

# Human IL-22BP Protein; hFc Tag

## Product Information

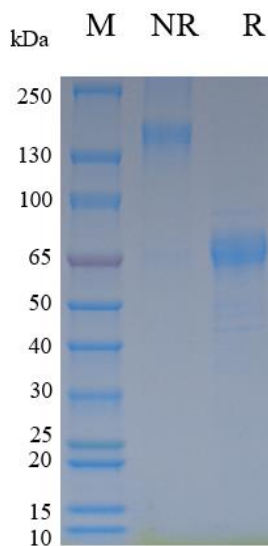
Product Name	Human IL-22BP Protein; hFc Tag
Storage temp	Store at $\leq -70^{\circ}\text{C}$ , stable for 6 months after receipt. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.
Catalog# / Size	GM-88087RP-100 / 100 $\mu\text{g}$ GM-88087RP-1000 / 1 mg

## Protein Information

Alternative Names	IL22RA2,CRF2-S1,IL-22BP,CRF2-10,CRF2-S1
Source	Human IL-22BP Protein; hFc Tag (GM-88087RP) is expressed from human 293 cells (HEK-293). It contains AA Thr 22 - Pro 231 (Accession # Q969J5-2). This protein carries a hFc tag at the C-terminus.
Purity	> 90% as determined by SDS-PAGE
Endotoxin	< 1 EU/ $\mu\text{g}$ , determined by LAL gel clotting assay
Predicted Mol Mass	50.0 KDa
Formulation	Supplied as a 0.2 $\mu\text{m}$ filtered solution of PBS, pH7.2-7.4.
Description	<p>IL-22 Binding Protein (IL22BP) is a soluble receptor belonging to the IL-10 receptor family, encoded by the IL22RA2 gene. It specifically binds to the cytokine IL-22 with high affinity and negatively regulates IL-22's biological functions by competitively inhibiting its interaction with the membrane-bound signaling receptor complex (composed of IL-10R2 and IL-22R1). This protein plays a critical role in maintaining immune homeostasis, inflammatory responses, and tissue repair, while its dysregulation is closely associated with various diseases such as psoriasis, colitis, and cancer.</p> <p>IL22BP itself does not directly transduce signals but indirectly modulates downstream pathways by neutralizing IL-22. Upon binding to IL-22, it prevents the activation of the JAK-STAT signaling pathway (primarily involving phosphorylation of JAK1/TYK2 kinases and subsequent STAT3 activation). This inhibition blocks the nuclear translocation of STAT3 and its initiation of target gene transcription, ultimately suppressing IL-22-mediated effects such as epithelial cell proliferation, antimicrobial peptide production, and mucosal barrier repair. Thus, IL22BP serves as a crucial upstream regulator of the IL-22/STAT3 pathway.</p>

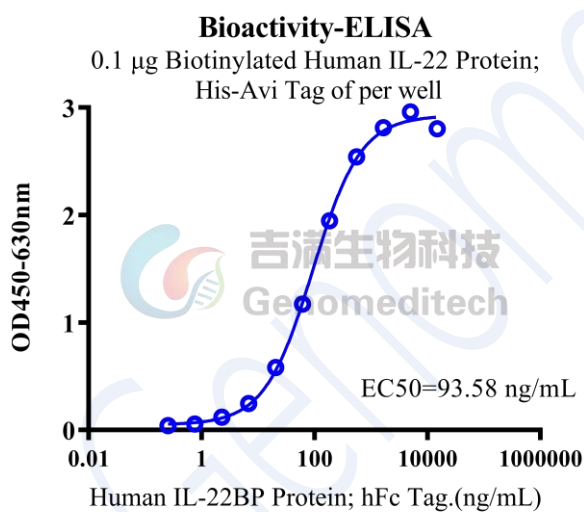
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## SDS-PAGE



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 90%.

## Bioactivity-ELISA



Biotinylated Human IL-22 Protein; His-Avi Tag (Catalog # GM-88081RP) was immobilized at 1  $\mu$ g/ml (100  $\mu$ L/well) on streptavidin precoated. Increasing concentrations of Human IL-22BP Protein; hFc Tag (Catalog # GM-88087RP) were added.