

# Human LILRB1(ILT2) Protein; His Tag(D9IDM8-1)

## Product Information

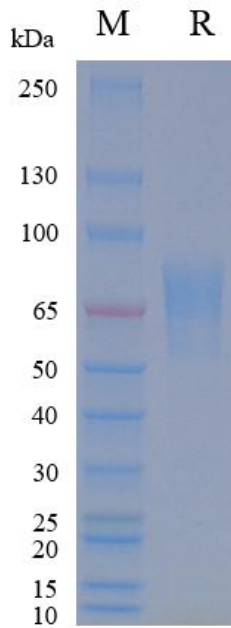
<b>Product Name</b>	Human LILRB1(ILT2) Protein; His Tag(D9IDM8-1)
<b>Storage temp</b>	Store at $\leq -70^{\circ}\text{C}$ , stable for 6 months after receipt. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.
<b>Catalog# / Size</b>	<b>GM-88522RP-100 / 100 <math>\mu\text{g}</math></b> <b>GM-88522RP-1000 / 1 mg</b>

## Protein Information

<b>Alternative Names</b>	CD85J, LILRB1, CD85, ILT2, LIR1, MIR7
<b>Source</b>	Human LILRB1(ILT2) Protein; His Tag(D9IDM8-1) (GM-88522RP) is expressed from human 293 cells (HEK-293). It contains AA Gly 24 - His 458 (Accession # D9IDM8-1). This protein carries a His 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>	48.0 KDa
<b>Formulation</b>	Supplied as a 0.2 $\mu\text{m}$ filtered solution of PBS, pH7.2-7.4.
<b>Description</b>	LILRB1, also known as CD85J, ILT2, or LIR-1, is a transmembrane receptor expressed on monocytes, dendritic cells, B cells, T cells, and NK cells. It belongs to the leukocyte immunoglobulin-like receptor (LILR) family and functions as an inhibitory receptor. LILRB1 has ITIMs in its cytoplasmic tail that recruit phosphatases such as SHP-1/2 upon engagement, dampening activating signals and maintaining immune tolerance. Ligands include classical and non-classical MHC I molecules (e.g., HLA-G, HLA-E) and certain viral proteins. Variations in LILRB1 influence immune responses in infections, cancer, and autoimmunity. LILRB1 ITIMs recruit SHP-1/2 upon ligand binding, leading to dephosphorylation of signaling intermediates and attenuation of PI3K/AKT and MAPK pathways. Inhibition reduces NK cell cytotoxicity, modulates dendritic cell maturation, and affects T cell activation and cytokine production. Crosstalk with other receptors tunes responses, balancing tolerance and immunity. Dysregulation of LILRB1 signaling is linked to tumor immune evasion and chronic infections, shaping adaptive and innate immunity.

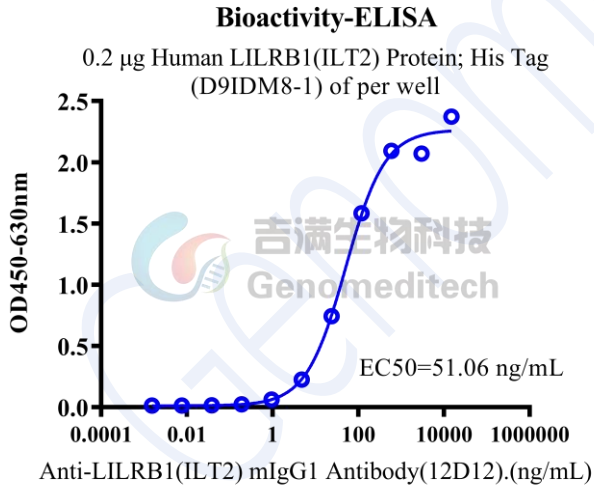
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## SDS-PAGE



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

## Bioactivity-ELISA



Human LILRB1(ILT2) Protein; His Tag(D9IDM8-1) (Catalog # GM-88522RP) was immobilized at 2  $\mu\text{g}/\text{ml}$  (100  $\mu\text{L}/\text{well}$ ). Increasing concentrations of Anti-LILRB1(ILT2) mIgG1 Antibody(12D12) (Catalog # GM-27366AB) were added.