

# Human CD79B Protein; His Tag

## Product Information

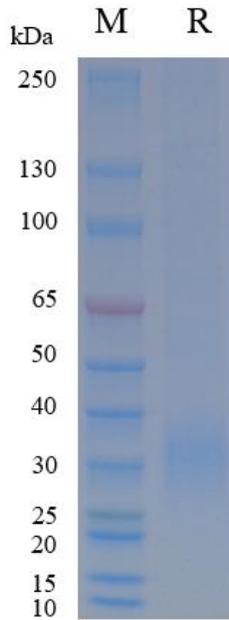
<b>Product Name</b>	Human CD79B Protein; His Tag
<b>Storage temp</b>	Store at $\leq -70^{\circ}\text{C}$ , stable for 6 months after receipt. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.
<b>Catalog# / Size</b>	<b>GM-88239RP-100 / 100 <math>\mu\text{g}</math></b> <b>GM-88239RP-1000 / 1 mg</b>

## Protein Information

<b>Alternative Names</b>	CD79b, B29, IGB, Ig-beta
<b>Source</b>	Human CD79B Protein; His Tag (GM-88239RP) is expressed from human 293 cells (HEK-293). It contains AA Ala 29 - Asp 159 (Accession # P40259-1). This protein carries a His tag at the C-terminus.
<b>Purity</b>	> 90% as determined by SDS-PAGE
<b>Endotoxin</b>	< 1 EU/ $\mu\text{g}$ , determined by LAL gel clotting assay
<b>Predicted Mol Mass</b>	16.0 KDa
<b>Formulation</b>	Supplied as a 0.2 $\mu\text{m}$ filtered solution of PBS, pH7.2-7.4.
<b>Description</b>	<p>CD79B is a transmembrane protein that forms a CD79A/CD79B heterodimer in the BCR complex. It belongs to the immunoglobulin superfamily and initiates BCR signaling after antigen binding. It has an extracellular Ig-like domain, a single transmembrane segment, and a cytoplasmic tail with ITAMs, which recruit/activate downstream kinases to drive B-cell development and immune responses. Dysregulation or mutations in CD79B can disrupt signaling and are linked to certain B-cell malignancies.</p> <p>CD79B partners with CD79A to form the signaling-competent BCR. Antigen binding Src-family kinases phosphorylate CD79B ITAMs, recruiting Syk and triggering downstream pathways (MAPK, NF-<math>\kappa</math> B, PI3K-Akt). This leads to <math>\text{Ca}^{2+}</math> flux and transcriptional programs supporting B-cell survival, proliferation, and differentiation. Aberrant CD79B signaling (ITAM mutations or altered surface expression) can increase BCR signaling and contribute to lymphomagenesis or autoimmunity.</p>

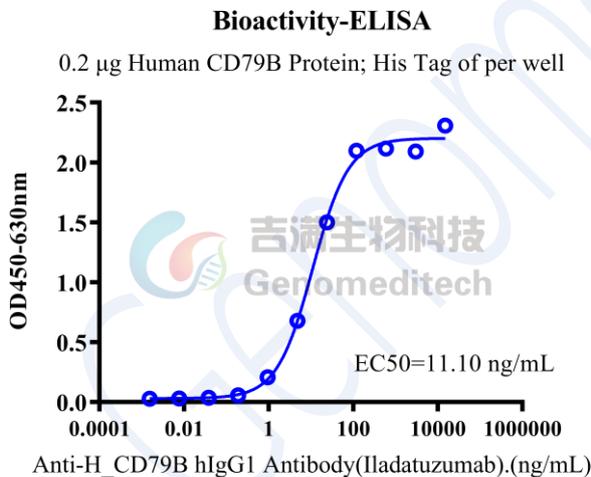
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## SDS-PAGE

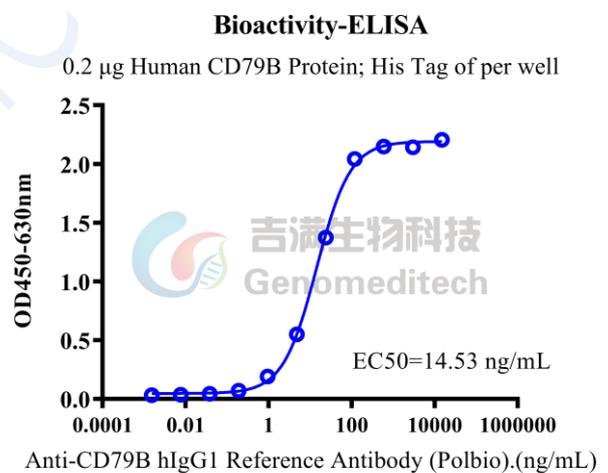


On SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 90%.

## Bioactivity-ELISA



Human CD79B Protein; His Tag (Catalog # GM-88239RP) was immobilized at 2 µg/ml (100 µL/well). Increasing concentrations of Anti-H\_CD79B hIgG1 Antibody (Iladatuzumab) (Catalog # GM-28857AB) were added.



Human CD79B Protein; His Tag (Catalog # GM-88239RP) was immobilized at 2 µg/ml (100 µL/well). Increasing concentrations of Anti-CD79B hIgG1 Reference Antibody (Polbio) (Catalog # GM-87712MAB) were added.