

# Human ROR1 Protein; hFc Tag

## Product Information

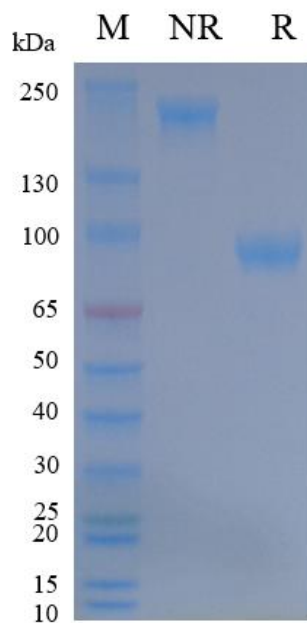
<b>Product Name</b>	Human ROR1 Protein; hFc Tag
<b>Storage temp</b>	Store at $\leq -70^{\circ}\text{C}$ , stable for 6 months after receipt. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.
<b>Catalog# / Size</b>	<b>GM-88197RP-100 / 100 <math>\mu\text{g}</math></b> <b>GM-88197RP-1000 / 1 mg</b>

## Protein Information

<b>Alternative Names</b>	ROR1, NTRKR1
<b>Source</b>	Human ROR1 Protein; hFc Tag (GM-88197RP) is expressed from human 293 cells (HEK-293). It contains AA Gln 30 - Glu 403 (Accession # Q01973-1). This protein carries a human IgG1 Fc 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>	67.9 KDa
<b>Formulation</b>	Supplied as a 0.2 $\mu\text{m}$ filtered solution of PBS, pH7.2-7.4.
<b>Description</b>	<p>ROR1 (receptor tyrosine kinase-like orphan receptor 1) is a RTK-like protein with no known ligand. It is highly expressed in early development, lower in most adult tissues, and upregulated in some cancers. The extracellular region binds ligands (if any) and a transmembrane domain anchors the protein; the intracellular region has a kinase-like domain. Its catalytic activity is debated but it can regulate proliferation, migration, and survival through downstream signaling, playing roles in immune and developmental pathways and attracting cancer therapy interest.</p> <p>ROR1 engages non-canonical Wnt signaling and downstream PI3K/AKT and MAPK pathways. Interactions with ligands like WNT5A or other membrane proteins activate Rho GTPases and Vav/Rac1, promoting cytoskeletal changes and migration, and can influence cell cycle and survival signals. Despite debated kinase activity, substrate selectivity or co-regulator interactions can modulate AKT and ERK signaling, affecting proliferation, drug resistance, and stem-like properties. Effects are context-dependent, varying by cell type and environment.</p>

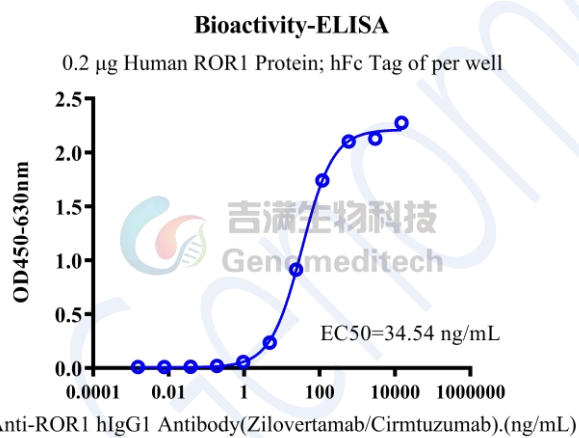
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## SDS-PAGE



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 95%.

## Bioactivity-ELISA



Human ROR1 Protein; hFc Tag (Catalog # GM-88197RP) was immobilized at 2 µg/ml (100 µL/well). Increasing concentrations of Anti-ROR1 hIgG1 Antibody (Zilovetamab/Cirmtuzumab) (Catalog # GM-48031AB) were added.