

Active Recombinant Human GPC3 protein, His/Avi-tagged, Biotinylated

Cat. No. GPC3-051H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Biotinylated Recombinant Human GPC3(Gln25-His559) protein, fused to His/Avi tag at the C-terminus, was expressed in CHO cells .
Species	Human
Source	CHO
ProteinLength	Gln25-His559
Description	Glypican 3 (GPC3), also known as GTR2-2, intestinal protein OCI-5 and MXR7, is a member of the heparan sulfate (HS) proteoglycan family (1). In mammals, six glypican family members have been identified, all sharing a conserved core protein that is linked to the cell membrane by a glycosylphosphatidylinositol (GPI) anchor. GPC3 can be cleaved by furin to produce two subunits that are linked by disulfide bonds: a 40 kDa N-terminal alpha subunit that can be secreted into the blood and a 30 kDa membrane-bound C-terminal beta subunit containing two HS glycan chains (1-3). Several isoforms of GPC3 due to alternative splicing have been reported (1). Within the mature extracellular domain, human GPC3 shares 96% amino acid sequence identity with both mouse and rat GPC3. GPC3 is an important biomarker present in the serum of hepatocellular carcinoma patients, which distinguishes benign from cancerous nodules (4). Glypican 3 is over-expressed in hepatocellular carcinomas and binding of GPC3 to CD81 promotes development of carcinomas by activation of Hippo pathways in hepatocytes (5). Our Avi-tag Biotinylated

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Recombinant Glypican 3 features biotinylation at a single site contained within the Avi-tag, a unique 15 amino acid peptide. Protein orientation will be uniform when bound to streptavidin-coated surface due to the precise control of biotinylation and the rest of the protein is unchanged so there is no interference in the protein's bioactivity.

Predicted N Terminal	Sequence confirmed by mass spectrometry.
Form	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose.
Bio-activity	Measured by its binding ability in a functional ELISA. When Recombinant Human FGF2 is immobilized at 0.1 g/mL (100 µg/well), Biotinylated Recombinant Human GPC3 His-tag Avi-tag binds with an ED50 of 20-100 ng/mL.
Molecular Mass	90-140 kDa under non-reducing conditions.
Endotoxin	<1.0 EU per 1 µg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
Applications	Bioactivity
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 °C as supplied. 1 month, 2 to 8 °C under sterile conditions after reconstitution. 3 months, -20 to -70 °C under sterile conditions after reconstitution.
Reconstitution	Reconstitute at 500 µg/mL in PBS.
Conjugation	Biotin

GENE INFORMATION

Gene Name GPC3 glypican 3 [Homo sapiens]

Official Symbol GPC3

Synonyms GPC3; glypican 3; SDYS; glypican-3; DGSX; glypican proteoglycan 3; OCI 5; SGB; SGBS; SGBS1; secreted glypican-3; intestinal protein OCI-5; heparan sulphate proteoglycan; MXR7; OCI-5; GTR2-2;

Gene ID 2719

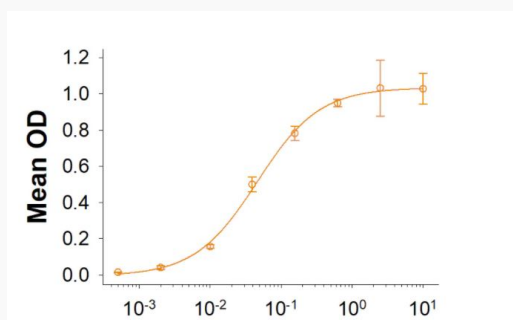
mRNA Refseq NM_001164617

Protein Refseq NP_001158089

MIM 300037

UniProt ID P51654

Binding Activity



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