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Biotin Human Glypican-3 Protein (C-His)

Catalog Number:	802003, 802004
Size:	25 ug, 100 ug
Target Name:	GPC3, GTR2-2, MXR7, SDYS, OCI5,
Regulatory Status:	RUO

PRODUCT DETAILS

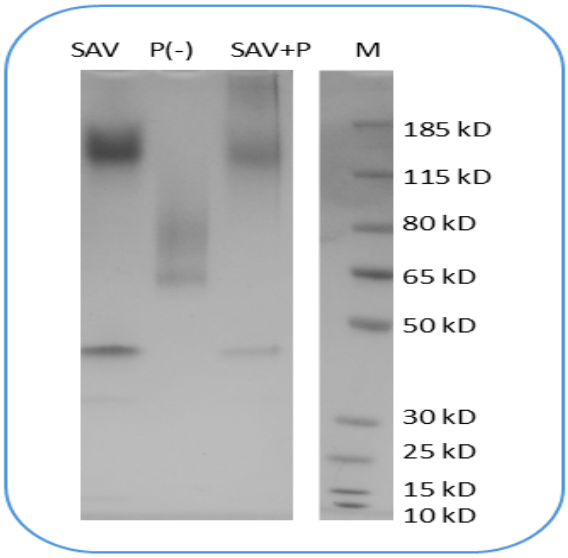
Application:	ELISA, BLI
Format:	Liquid, Biotinylated
Expression Host:	CHO
Species:	Human
Sources:	Human Glypican-3 (Gln25-His559) with C-terminus His tag is expressed in CHO cells
Accession Number:	P51654
Molecular Weight:	The protein has a predicted molecular weight of 62kDa. Under DTT-reducing conditions, it migrates at approximately 65-100 kDa on SDS-PAGE.
Affinity Tag:	C-His
Purity:	>95% based on SDS-PAGE under reducing condition
Formulation:	1xPBS buffer, pH7.4, 0.22 μm filtered
Endotoxin level:	Not tested
Protein Concentration:	25μg size is bottled at 0.2mg/mL concentration. 100 μg size is supplied at a lot-specific concentration.
Storage and Handling:	Briefly centrifuge the vial upon receipt. An unopened vial can be stored at 4°C for up to 2 weeks, or at -20°C or below for up to six months. The protein may be further diluted to 0.1 mg/mL using 0.22 μm-filtered PBS buffer (pH 7.4). For long-term storage, the diluted stock solution should be aliquoted and stored at ≤ –70°C to minimize freeze-thaw cycles. If additional dilution is required, carrier proteins such as FBS or BSA should be added to maintain protein stability.
Recommended Usage:	For detection, use a secondary reagent with this product.

BACKGROUND INFORMATION

Glypicans are heparan sulfate proteoglycans anchored to the cell surface by a glycosyl-phosphatidylinositol (GPI) linkage. There are six known mammalian glypicans (GPC1 to GPC6), which can be released by the lipase Notum. They regulate signaling pathways like Wnt, Hedgehog, FGF, and BMPs. Glypican-3 (GPC3) plays a role in modulating IGF2 interactions and influences cell proliferation. It also interacts with FGF-basic via heparan sulfate chains. Mutations in GPC3 cause Simpson-Golabi-Behmel Syndrome (SGBS), leading to overgrowth, dysmorphism, and malformations. GPC3 is expressed as a 70 kDa precursor, cleaved into a 40 kDa N-terminal and 30 kDa C-terminal subunit. It is highly expressed in Hepatocellular carcinoma and melanoma, but downregulated in

cancers like ovarian, cholangiocarcinoma, mesothelioma, and breast cancer due to promoter hypermethylation.

PRODUCT DATA



Human Glypican 3 (C-His) Protein was biotinylated in vitro. SDS-PAGE analysis under non-reducing (P−) conditions shows the protein has a purity greater than 95%. A gel shift assay using co-incubation with streptavidin indicates that the biotinylation efficiency of the Glypican 3 protein exceeds 85%.

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