

Recombinant Human Glypican-1/GPC1 Protein (His Tag)

Catalog Number: PDMH100381

Note: Centrifuge before opening to ensure complete recovery of vial contents.

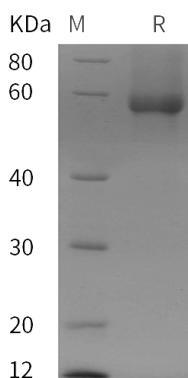
Description

Species	Human
Source	Mammalian-derived Human Glypican-1 protein Asp24-Ser530, with an C-terminal His
Calculated MW	55.7 kDa
Observed MW	58 kDa
Accession	P35052
Bio-activity	Not validated for activity

Properties

Purity	> 95% as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU/mg of the protein as determined by the LAL method
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with 5% Trehalose and 5% Mannitol.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.5 mg/mL. Concentration is measured by UV-Vis.

Data



SDS-PAGE analysis of Human Glypican-1/GPC1 proteins, 2 µg/lane of Recombinant Human Glypican-1/GPC1 proteins was resolved with SDS-PAGE under reducing conditions, showing bands at 58 kDa.

Background

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The Glypicans are a small multigene family of GPI-linked proteoglycans that play a key role in growth factor signaling. Human Glypican 1 (GPC1) is synthesized as a 558 amino acid (aa) preproprecursor that contains a 23 aa signal sequence, a 507 aa mature segment, and a 28 aa C-terminal prosegment. There are two potential N-linked and four potential O-linked sites for glycosylation or glycanation. There are potentially two heparan sulfate (HS) modifications on GPC1 that could contribute to a native molecular weight of approximately 200 kDa. Mature human GPC1 shares 91% aa identity with mature mouse GPC1. Cells known to express GPC1 include neurons, smooth and skeletal muscle cells, keratinocytes, osteoblasts, Schwann cells, immature dendritic cells, and tumor, plus tumor-associated vascular endothelial cells. The function of GPC1 is complex and varied. As a proteoglycan, it appears to make use of its HS adduct to impact select growth factor activity. This is accomplished by having juxtramembrane HS attachment sites, and a flexible, GPI-linkage.

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