

Glypican 1 (GPC1) Active Protein | GPC1 active protein

Active Glypican 1 (GPC1)

CATALOG # AAA161825	HOST E Coli	APPLICATIONS Activity Assay, Cell Culture
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PRODUCT SYNONYMS

Glypican 1 (GPC1); Active Glypican 1 (GPC1); Glypican 1; Glypican Proteoglycan 1; Secreted glypican-14; GPC1 active protein

PRODUCT SPECIFICATIONS

Host	E Coli
Purity/Purification	Greater than 95% by SDS-PAGE
Form/Format	Freeze-dried powder; PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
Sequence	Gly343~Val 545
Applicable Applications for GPC1 active protein	Activity Assay, Cell Culture
Species	Mouse
Expression System	Prokaryotic expression
Tag	N-terminal His Tag
Endotoxin Level	<1.0EU per 1ug (determined by the LAL method)
Isoelectric Point	6.8
Research Area	Tumor immunity, Pulmonology, Hepatology
Preparation and Storage	Store at 2-8 degree C for one month, -80 degree C for 12 months

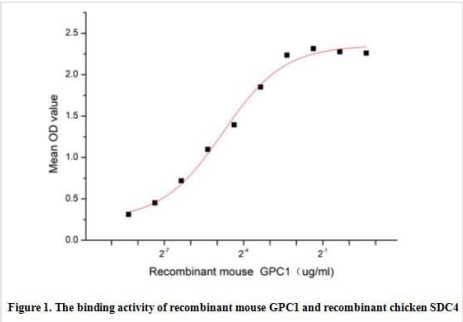
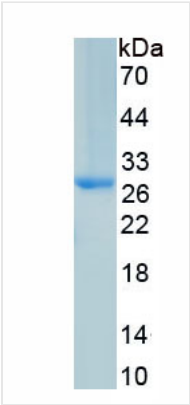


Figure 1. The binding activity of recombinant mouse GPC1 and recombinant chicken SDC4



SDS-PAGE
Figure. SDS-PAGE

Bioactivity

Glypican 1 (GPC1) is one of the six glycosylphosphatidylinositol-anchored, cell surface heparan sulfate proteoglycans that acts as a growth factor signaling. Cells known to express GPC-1 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 GPC-1 is complex and varied, it can modulate various signaling pathways including Heparin Binding Epidermal Growth Factor Like Growth Factor (HBEGF), fibroblast growth factors (FGF), vascular endothelial growth factor-A (VEGF-A), transforming growth factor-beta (TGF-beta), Wnt, Hedgehog (Hh), and bone morphogenic protein (BMP) through specific interactions with pathway ligands and receptors. Besides, Syndecan 4 (SDC4) has been also identified as an interactor of GPC1, thus a functional binding ELISA assay was conducted to detect the interaction of recombinant mouse GPC1 and recombinant chicken SDC4. Briefly, GPC1 was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 ul were then transferred to SDC4-coated microtiter wells and incubated for 1h at 37 degree C. Wells were washed with PBST and incubated for 1h with anti-GPC1 pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody for 1h at 37 degree C, wells were aspirated and washed 5 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37 degree C. Finally, add 50 uL stop solution to the wells and read at 450/630 nm immediately. The binding activity of recombinant mouse GPC1 and recombinant chicken SDC4 was shown in Figure 1, the EC50 for this effect is 0.04 ug/mL.

ADDITIONAL INFORMATION

Product Categories/Family for GPC1 active protein	Active proteins
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NCBI AND UNIPROT INFORMATION

NCBI GI #	7710028
NCBI GeneID	14733
NCBI Accession #	NP_057905.1
NCBI GenBank Nucleotide #	NM_016696.5
UniProt Accession #	Q9QZF2
Molecular Weight	61,360 Da
NCBI Official Full Name	glypican-1
NCBI Official Synonym Full Names	glypican 1
NCBI Official Symbol	Gpc1
NCBI Official Synonym Symbols	AI462976
NCBI Protein Information	glypican-1
UniProt Protein Name	Glypican-1
UniProt Gene Name	Gpc1

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/e-coli-active-protein/glypican-1-gpc1/161825>