

Glypican 3 (GPC3) Active Protein | GPC3 active protein

Active Glypican 3 (GPC3)

CATALOG # AAA161814	HOST E Coli	APPLICATIONS Activity Assay, Cell Culture
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PRODUCT SYNONYMS

Glypican 3 (GPC3); Active Glypican 3 (GPC3); Glypican 3; DGSX; OCI5; SDYS; SGB; SGBS1; MXR7; Glypican Proteoglycan 3; GTR2-2; Intestinal protein OCI-5; Secreted glypican-34; GPC3 active protein

PRODUCT SPECIFICATIONS

Host	E Coli
Purity/Purification	Greater than 80% by SDS-PAGE
Form/Format	Freeze-dried powder; PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
Sequence	Thr343~His 559
Applicable Applications for GPC3 active protein	Activity Assay, Cell Culture
Species	Human
Expression System	Prokaryotic expression
Tag	N-terminal His and GST Tag
Endotoxin Level	<1.0EU per 1ug (determined by the LAL method)
Isoelectric Point	6
Research Area	Tumor immunity, Infection immunity, Developmental science
Preparation and Storage	Store at 2-8 degree C for one month, -80 degree C for 12 months

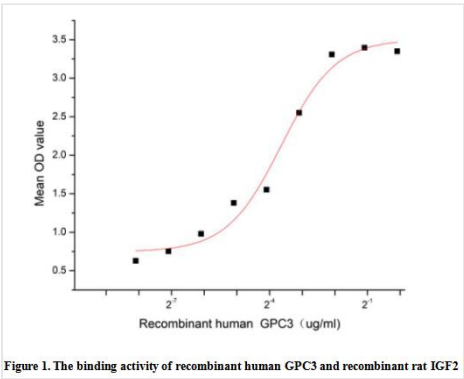


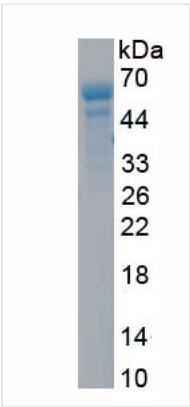
Figure 1. The binding activity of recombinant human GPC3 and recombinant rat IGF2

Bioactivity

Glypican-3 (GPC3), a 70 kDa protein, is a member of the glypican family that attaches to the cell surface by a glycosylphosphatidylinositol anchor, is specifically up-regulated in hepatocellular carcinoma (HCC) although rarely or not expressed in normal liver tissues, making it a perfect test and treatment target for HCC. GPC3 is also a negative transcriptional regulator and tumor suppressor that inhibits the growth of breast, ovary, and lung cancer cells. It is reported that GPC3 can form a complex with insulin-like growth factor 2 (IGF2), and might thereby modulate IGF2 action. Thus a functional binding ELISA assay was conducted to detect the interaction of recombinant human GPC3 and recombinant rat IGF2. Briefly, GPC3 was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 ul were then transferred to IGF2-coated microtiter wells and incubated for 1h at 37 degree C. Wells were washed with PBST and incubated for 1h with anti-GPC3 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 human GPC3 and recombinant rat IGF2 was shown in Figure 1, the EC50 for this effect is 0.08 ug/mL.

SDS-PAGE

Figure. SDS-PAGE



ADDITIONAL INFORMATION

Product Categories/Family for GPC3 active protein	Active proteins
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NCBI AND UNIPROT INFORMATION

NCBI GI #	257471010
NCBI GeneID	2719
NCBI Accession #	NP_001158091.1
NCBI GenBank Nucleotide #	NM_001164619.1
UniProt Accession #	P51654; Q2L880; Q2L882; C9JLE3; G3V1R0
Molecular Weight	65,563 Da
NCBI Official Full Name	glypican-3 isoform 4
NCBI Official Synonym Full Names	glypican 3
NCBI Official Symbol	GPC3
NCBI Official Synonym Symbols	SGB; DGSX; MXR7; SDYS; SGBS; OCI-5; SGBS1; GTR2-2
NCBI Protein Information	glypican-3; secreted glypican-3; glypican proteoglycan 3; intestinal protein OCI-5; heparan sulphate proteoglycan
UniProt Protein Name	Glypican-3
UniProt Gene Name	GPC3
UniProt Synonym Gene Names	OCI5

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-3-gpc3/161814>