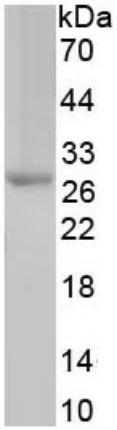
Active Glypican 1 (GPC1)

Catalog#:PEM12588

概述（Summary）

别称（Alternative Names）	Glypican Proteoglycan 1; Secreted glypican-1
纯度（Purity）	Greater than 95% as determined by reducing SDS-PAGE.
内毒素（Endotoxin level）	Please contact with the lab for this information
蛋白构建（Construction）	【Gly343-Val545】
Accession #	Q9QZF2
表达宿主（Host）	E.coli
种属（Species）	Mus musculus (Mouse)
预测分子量（Predicted MW）	23.2 kDa
制剂（Form）	Lyophilized from a 0.2 μm filtered solution of PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
运输方式（Shipping）	The product is shipped with ice bag. Upon receipt, store it immediately at the temperature listed below.
稳定性&储存（Stability &Storage）	12 months at -20°C to -80°C in lyophilized state.6 months at -20°C to -80°C under sterile conditions after reconstitution.7-10 days at 2°C to 8°C under sterile conditions after reconstitution.Please minimize freeze-thaw cycles.
复溶（Reconstitution）	Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.
背景介绍（References）	Cell surface proteoglycan that bears heparan sulfate. Binds, via the heparan sulfate side chains, alpha-4 (V) collagen and participates in Schwann cell myelination. May act as a catalyst in increasing the rate of conversion of prion protein PRPN(C) to PRNP(Sc) via associating (via the heparan sulfate side chains) with both forms of PRPN, targeting them to lipid rafts and facilitating their interaction. Required for proper skeletal muscle differentiation by sequestering FGF2 in lipid rafts preventing its binding to receptors (FGFRs) and inhibiting the FGF-mediated signaling. Binds Cu(2+) or Zn(2+) ions.

电泳图（SDS-PAGE image）



Greater than 95% as determined by reducing SDS-PAGE.

活性图（Bioactivity image）

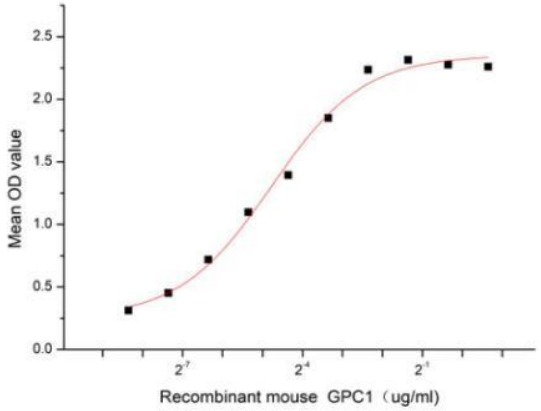


Figure 1. The binding activity of recombinant mouse GPC1 and recombinant chicken SDC4

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-β (TGF-β), 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 µl were then transferred to SDC4-coated microtiter wells and incubated for 1h at 37℃. 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℃, wells were aspirated and washed 5 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37℃. Finally, add 50 µL 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.

注意事项（Note）

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