R&D SYSTEMS
a bio-techne brand

Mouse Glypican 2 Biotinylated Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: BAF2355

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse Glypican 2 in direct ELISAs and Western blots. In direct ELISAs and Wetern blots, approximately 50% cross-reactivity with recombinant human (rh) Glypican 2 is observed and less than 1% cross-reactivity with rhGlypican 3, recombinant mouse Glypican 5, and rhGlypican 6 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse Glypican 2 Lys27-Leu554 Accession # Q8BKV1
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with BSA as a carrier protein. See Certificate of Analysis for details.

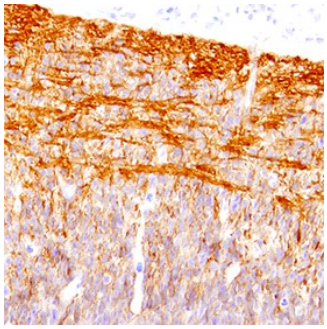
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Western Blot	0.1 µg/mL	Recombinant Mouse Glypican 2 (Catalog # 2355-GP)
Immunohistochemistry	5-15 µg/mL	See Below

DATA

Immunohistochemistry



Glypican 2 in Mouse Embryo. Glypican 2 was detected in perfusion fixed frozen sections of mouse embryo (15 d.p.c.) using Goat Anti-Mouse Glypican 2 Biotinylated Antigen Affinity-purified Polyclonal Antibody (Catalog # BAF2355) at 0.3 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Goat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS008) and counterstained with hematoxylin (blue). Specific staining was localized to processes in developing brain. View our protocol for Chromogenic IHC Staining of Frozen Tissue Sections.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

The glypicans (GPC) constitute a family of heparan sulfate proteoglycans that are attached to the cell surface by a glycosylphosphatidylinositol (GPI) anchor. Six members of this family have been identified in mammals (GPC1-GPC6). All glypican core proteins contain an N-terminal signal peptide, a large globular cysteine-rich domain (CRD) with 14 invariant cysteine residues, a stalk-like region containing the heparan sulfate attachment sites, and a C-terminal GPI attachment site. Based on the degree of their amino acid sequence similarity, two subfamilies of glypicans have been defined. One subfamily (sharing from 35-63% sequence homology) includes GPC1, 2, 4, and 6, while the second subfamily (sharing 54% sequence identity) includes GPC3 and 5. Proteins between the two subfamilies also share 17-25% sequence similarity (1-4). Glypicans are widely expressed in adult and fetal tissues. During embryonic development, the expression level of the various glypicans changes in a stage and tissue specific manner. GPC2, also known as cerebroglycan, is primarily expressed in developing neuronal tissues including the brain, spinal cord, dorsal root ganglia, and cranial nerves. It is found on the tracts of actively growing axons (5). Cell surface GPC2 binds midkine, indicating midkine-GPC2 interaction may participate in neuronal cell migration and neurite outgrowth (6).

References:

1. Filmus, J. and S.B. Selleck (2001) J. Clin. Invest. **108**:497.
2. De Cat, B. and G. David (2001) Semin. Cell Dev. Biol. **12**:117.
3. Song, H. and J. Filmus (2002) Biochem. Biophys. Acta **1573**:241.
4. Veugelers, M. *et al.* (1999) J. Biol. Chem. **274**:26968.
5. Ivins, J.K. *et al.* (1997) Dev. Biol. **184**:320.
6. Kurosawa, N. *et al.* (2001) Glycoconj. J. **18**:499.

bio-techne
bio-techne.com
Global info@bio-techne.com techsupport@bio-techne.com
North America TEL 800 343 7475 Europe | Middle East | Africa TEL +44 (0)1235 529449
China info.cn@bio-techne.com TEL +86 (21) 52380373
Rest of World bio-techne.com/find-us/distributors TEL +1 612 379 2956