

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse Glypican 2 in direct ELISAs and Western blots. In direct ELISAs and Western blots, no cross-reactivity with recombinant human GPC2, 3, 5, or 6 is observed.
Source	Monoclonal Rat IgG _{2A} Clone # 300736
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse Glypican 2 Lys27-Leu554 Accession # Q8BKV1
Conjugate	Alexa Fluor 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

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.

Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunohistochemistry	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

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).

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