

GM2/GD2 Synthase (P-20): sc-54073

BACKGROUND

GM2/GD2 Synthase is a 533 amino acid protein encoded by the human gene B4GALNT1. The GM2 and GD2 gangliosides are sialic acid-containing glycosphingolipids that play a role in signal transduction and cell-cell recognition. GM2/GD2 Synthase is expressed abundantly in normal brain tissue of vertebrates. It contains a single 18 amino acid hydrophobic segment near the amino-terminus flanked by basic residues. GM2/GD2 Synthase primarily controls the balance between expression of simple and complex gangliosides at the cell surface. The ganglioside GD2 is expressed using GM2/GD2 Synthase in almost all neuroblastomas (NBs) as well as other neuroectoderm-derived tumor cells, such as malignant melanoma, adult T cell leukemia and some colon and gastric cancers. GM2/GD2 Synthase is a useful marker for NBs and may aid in evaluating adjuvant treatment efficacy in neuroblastoma with prognostic potential.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: B4GALNT1 (human) mapping to 12q13.3; B4galnt1 (mouse) mapping to 10 D3.

SOURCE

GM2/GD2 Synthase (P-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of GM2 of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-54073 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

GM2/GD2 Synthase (P-20) is recommended for detection of GM2/GD2 Synthase of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

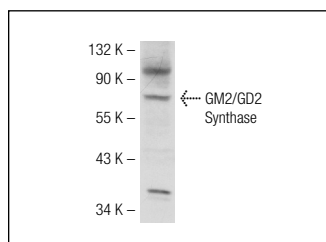
GM2/GD2 Synthase (P-20) is also recommended for detection of GM2/GD2 synthase in additional species, including canine and bovine.

Suitable for use as control antibody for GM2/GD2 Synthase siRNA (h): sc-105401, GM2/GD2 Synthase siRNA (m): sc-77390, GM2/GD2 Synthase shRNA Plasmid (h): sc-105401-SH, GM2/GD2 Synthase shRNA Plasmid (m): sc-77390-SH, GM2/GD2 Synthase shRNA (h) Lentiviral Particles: sc-105401-V and GM2/GD2 Synthase shRNA (m) Lentiviral Particles: sc-77390-V.

Molecular Weight of GM2/GD2 Synthase: 59 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, mouse brain extract: sc-2253 or rat brain extract: sc-2392.

DATA



GM2/GD2 Synthase (P-20): sc-54073. Western blot analysis of GM2/GD2 Synthase expression in HeLa whole cell lysate.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

MONOS
Satisfaction
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Try **GM2/GD2 Synthase (C-5): sc-376505**, our highly recommended monoclonal alternative to GM2/GD2 Synthase (P-20).