

GM2/GD2 Synthase (H-180): sc-67312

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 (H-180) is a rabbit polyclonal antibody raised against amino acids 1-180 mapping at the N-terminus of GM2 of human origin.

PRODUCT

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

APPLICATIONS

GM2/GD2 Synthase (H-180) is recommended for detection of GM2/GD2 Synthase of human and, to a lesser extent, mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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).

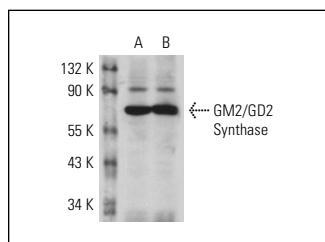
GM2/GD2 Synthase (H-180) is also recommended for detection of GM2/GD2 synthase in additional species, including canine.

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.

DATA



GM2/GD2 Synthase (H-180): sc-67312. Western blot analysis of GM2/GD2 Synthase expression in rat brain (A) and mouse brain (B) tissue extracts.

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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

MONOS
Satisfaction
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Try **GM2/GD2 Synthase (C-5): sc-376505**, our highly recommended monoclonal alternative to GM2/GD2 Synthase (H-180).