GD3 Synthase (B-11): sc-390123

**BACKGROUND**

GD3 Synthase (GD3S, SIAT8, ST8Sial, ST8 α-N-acetyl-neuraminidase α2,8-sialyltransferase) is a type II membrane protein that catalyzes the transfer of sialic acid from CMP-sialic acid to GM3 to produce gangliosides GD3 and GT3. Gangliosides are membrane-bound glycosphingolipids containing sialic acid. Ganglioside GD3 is known to be important for cell adhesion and growth of cultured malignant cells. GD3 Synthase is found in the Golgi apparatus and is a member of the glycosyltransferase family. GD3 Synthase can down-regulate MMP-9 promoter activity in response to TNF-α by association with NFκB and activation protein-1 (AP-1) sites in the MMP-9 promoter. GD3 Synthase has an apoptotic effect on ECV304 cells through downregulation of Bcl-2 expression via dephosphorylation of Akt and CREB.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: ST8SIA1 (human) mapping to 12p12.1; ST8SIA1 (mouse) mapping to 6 G3.

**SOURCE**

GD3 Synthase (B-11) is a mouse monoclonal antibody raised against amino acid 65-140 mapping near the N-terminus of GD3 Synthase of human origin.

**PRODUCT**

Each vial contains 200 µg IgG1 lambda light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

GD3 Synthase (B-11) is available conjugated to agarose (sc-390123 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390123 HRP), 200 µg/ml, for WB, HCIP and ELISA; to either phycoerythrin (sc-390123 PE), fluorescein (sc-390123 FITC), Alexa Fluor® 488 (sc-390123 AF488), Alexa Fluor® 546 (sc-390123 AF546), Alexa Fluor® 594 (sc-390123 AF594) or Alexa Fluor® 647 (sc-390123 AF647), 200 µg/ml, for WB (RGB), IF, HCIP and FCM; and to either Alexa Fluor® 680 (sc-390123 AF680) or Alexa Fluor® 790 (sc-390123 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA.

**STORAGE**

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

**APPLICATIONS**

GD3 Synthase (B-11) is recommended for detection of GD3 Synthase of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for GD3 Synthase siRNA (h): sc-44586, GD3 Synthase siRNA (m): sc-44587, GD3 Synthase shRNA Plasmid (h): sc-44586-SH, GD3 Synthase shRNA Plasmid (m): sc-44587-SH, GD3 Synthase siRNA (h) Lentiviral Particles: sc-44586-V and GD3 Synthase shRNA (m) Lentiviral Particles: sc-44587-V.

Molecular Weight of GD3 Synthase: 50 kDa.

Positive Controls: GD3 Synthase (m): 293T Lysate: sc-120460 or KNRK whole cell lysate: sc-2214.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended:

1. Western Blotting: use m-IgG1 anti-GD3 Synthase Positive Controls: GD3 Synthase (m): 293T Lysate: sc-120460 or KNRK whole cell lysate: sc-2214. Suitable for use as control antibody for GD3 Synthase siRNA (h): sc-44586, GD3 Synthase siRNA (m): sc-44587, GD3 Synthase shRNA Plasmid (h): sc-44586-SH, GD3 Synthase shRNA Plasmid (m): sc-44587-SH, GD3 Synthase siRNA (h) Lentiviral Particles: sc-44586-V and GD3 Synthase shRNA (m) Lentiviral Particles: sc-44587-V.

Molecular Weight of GD3 Synthase: 50 kDa.

Positive Controls: GD3 Synthase (m): 293T Lysate: sc-120460 or KNRK whole cell lysate: sc-2214.

**DATA**

GD3 Synthase (B-11): sc-390123. Western blot analysis of GD3 Synthase expression in non-transfected: sc-117572 (A) and mouse GD3 Synthase transfected: sc-120480 (B) 293T whole cell lysates.

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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