SunLong Biotech Co.,LTD
Tel: 0086-571-56623320 Fax:0086-571-56623318
E-mail:sales@sunlongbiotech.com
www.sunlongbiotech.com

[Primary Antibody]

Rabbit Anti-ganglioside GM1 antibody

Catalog Number: SL2367R

FOR RESEARCH USE ONLY

[DATASHEET]

Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Target:	ganglioside GM1
Immunogen:	KLH conjugated ganglioside GM1 purified from bovine
Purification:	affinity purified by Protein A
Concentration:	1mg/ml
Storage:	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Applications:	IHC-P=1:100-500 IHC-F=1:100-500 IF=1:100-500 Flow-Cyt=0.2μg/Test （Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Reactivity:	Species independent
Predicted MW.:	1.57kDa
Subcellular Location:	cytoplasmic The cell membrane
Background:	A member of the family of glycosphingolipids, monosialoanglioside acts as a receptor and antigen for cholera. GM1 ganglioside, one of the glycosphingolipids widely distributed in all tissues, occurs in highest concentrations in the central nervous system (CNS). It is primarily located in the outer surface of the mammalian cell's plasma membrane and in synaptic membranes of the CNS. GM1 ganglioside modulates a number of cell surface and receptor activities as well as neuronal differentiation and development, protein phosphorilation and synaptic function. **Subcellular Location:** Plasma membrane **SWISS:** N/A CAS: 37758-47-7 A sphingolipid containing sialic acid. E. Klenk (1935) first discovered its

Important Note: This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

SunLong Biotech Co.,LTD
Tel: 0086-571-56623320 Fax:0086-571-56623318
E-mail:sales@sunlongbiotech.com
www.sunlongbiotech.com

	accumulation in the brain of children with Tay-Sachs disease (Tay-Sachs ganglioside), where it is abundant in the gray and white matter of the brain; hence this class of glycolipids was named ganglioside. More than 8 types of brain gangliosides are known, with the sugar portion composed of hexose, amino sugar, and sialic acid. Non-nervous-system gangliosides found by Tamio Yamakawa (1951) in horse erythrocyte stroma are mainly hematoside [structure: ceramide (1←1β) GLc (4←1β) Gal (3←2α) sialic acid]. Gangliosides are present in relatively large amounts in the cell membrane and have attracted attention for their relationship to membrane function. The exotoxins of tetanus and cholera bacteria can specifically bind to specific ganglioside molecules. Soluble in water and organic solvents. In water, they exist as micelles formed by the aggregation of millions of molecules. Gangliosides have a major promoting effect on nerve regeneration. Further research by Dr. Gatte Walker, chief scientist of the Brain Science Research Laboratory of Canada's Jinjue Group, found that nerve growth factor (NGF) and ganglioside (GM) are essential substances for the regeneration and development of brain nerves; GM mediates NGF to enhance its activity dozens of times, forming new and abundant neural networks, repairing and promoting the redevelopment of brain nerves. GM can mediate nerve growth factor NGF to promote the regeneration of brain nerve cells, showing good biological effects. — Journal of Xi'an Jiaotong Medical University.

[VALIDATION IMAGES]

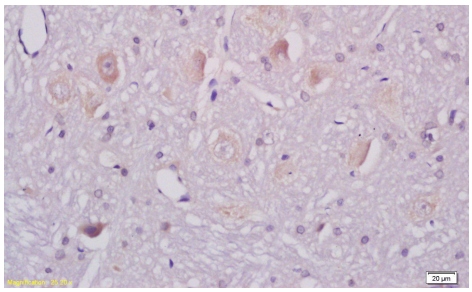


Figure 1. Tissue/cell: rat brain tissue; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min; Incubation: Anti-GM1(GS) Polyclonal Antibody, Unconjugated(SL2367R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining

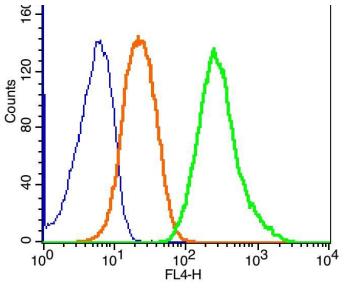


Figure 2. Blank control:RSC96 (blue). Primary Antibody: Rabbit Anti-ganglioside GM1/BF647 Conjugated antibody (SL2367R-BF647), Dilution: 0.2μg in 100 μL 1X PBS containing 0.5% BSA; Isotype Control Antibody: Rabbit IgG/BF647(orange),used under the same conditions

Important Note: This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

SUNLONG

SunLong Biotech Co.,LTD

Tel: 0086-571-56623320 Fax:0086-571-56623318

E-mail:sales@sunlongbiotech.com

www.sunlongbiotech.com

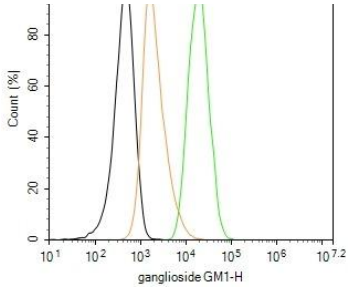


Figure 3. The Neuro-2a (M) cells were fixed with 4% PFA (10 min at r.t.) and then permeabilized with 90% ice-cold methanol for 20 min at -20°C,the cells then were incubated in 5%BSA to block non-specific protein-protein interactions (30 min at r.t.), followed by secondary antibody incubation for 40 min at room temperature. Primary Antibody (green):Rabbit Anti-ganglioside GM1 antibody (SL2367R,1:100); Isotype Control (orange): Rabbit IgG (SL0295P). Blank control (black): PBS. Acquisition of 20,000 events was performed

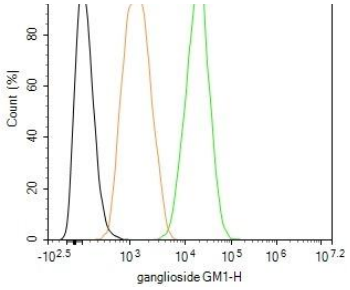


Figure 4. The Raji (H) cells were fixed with 4% PFA (10 min at r.t.) and then permeabilized with 90% ice-cold methanol for 20 min at -20°C,the cells then were incubated in 5%BSA to block non-specific protein-protein interactions (30 min at r.t.), followed by secondary antibody incubation for 40 min at room temperature. Primary Antibody (green):Rabbit Anti-ganglioside GM1 antibody (SL23671R,1:100); Isotype Control (orange): Rabbit IgG (SL0295P). Blank control (black): PBS. Acquisition of 20,000 events was performed

Important Note: This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.