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GAL3ST1 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP8884c

Specification

GAL3ST1 Antibody (Center) - Product Information

Application	**FC, WB, IHC-P,E**
Primary Accession	Q99999
Reactivity	**Human, Mouse**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Antigen Region	**88-116**

GAL3ST1 Antibody (Center) - Additional Information

Gene ID 9514

Other Names
Galactosylceramide sulfotransferase, GalCer sulfotransferase, 3'-phosphoadenosine-5'-phosphosulfate:GalCer sulfotransferase, 3'-phosphoadenylylsulfate:galactosylceramide 3'-sulfotransferase, Cerebroside sulfotransferase, GAL3ST1, CST

Target/Specificity
This GAL3ST1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 88-116 amino acids from the Central region of human GAL3ST1.

Dilution
FC~~1:10~50
WB~~1:2000
IHC-P~~1:50~100
E~~Use at an assay dependent concentration.

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
GAL3ST1 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

GAL3ST1 Antibody (Center) - Protein Information

Name GAL3ST1 (HGNC:24240)

Function Catalyzes the transfer of a sulfate group to position 3 of non-reducing beta-galactosyl residues in glycerolipids and sphingolipids, therefore participates in the biosynthesis of sulfoglycolipids (PubMed:8830034, PubMed:9030544). Catalyzes the synthesis of galactosylceramide sulfate (sulfatide), a major lipid component of the myelin sheath and of monogalactosylalkylacylglycerol sulfate (seminolipid), present in spermatocytes (PubMed:8830034). Seems to prefer beta-glycosides at the non-reducing termini of sugar chains attached to a lipid moiety (PubMed:8830034). Also acts on lactosylceramide, galactosyl 1-alkyl-2-sn-glycerol and galactosyl diacylglycerol (in vitro) (PubMed:8830034).

Cellular Location
Golgi apparatus membrane; Single- pass type II membrane protein

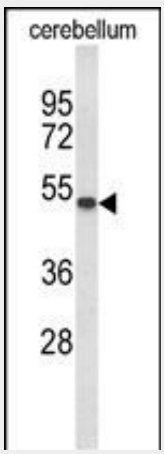
Tissue Location
Expressed in kidney proximal tubule, gastric mucosa and adenocarcinoma (PubMed:10785389, PubMed:9030544). Highly expressed in renal cell carcinoma cell lines (PubMed:8830034, PubMed:9030544)

GAL3ST1 Antibody (Center) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

GAL3ST1 Antibody (Center) - Images



Western blot analysis of GAL3ST1 Antibody (Center) (Cat. #AP8884c) in mouse cerebellum tissue lysates (35ug/lane). GAL3ST1 (arrow) was detected using the purified Pab.

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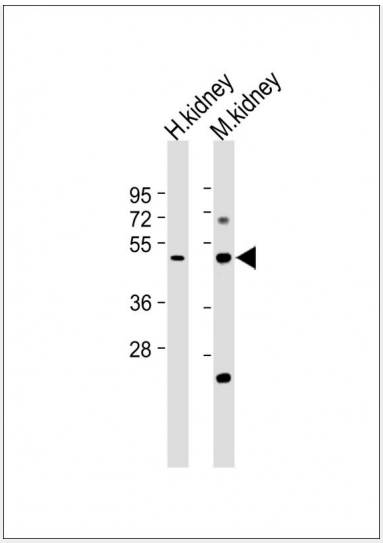
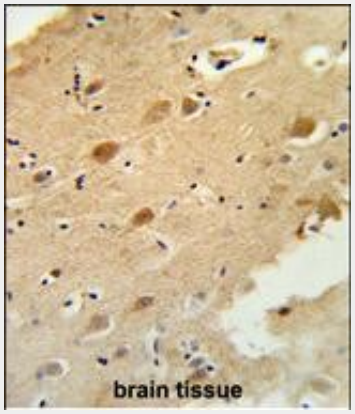
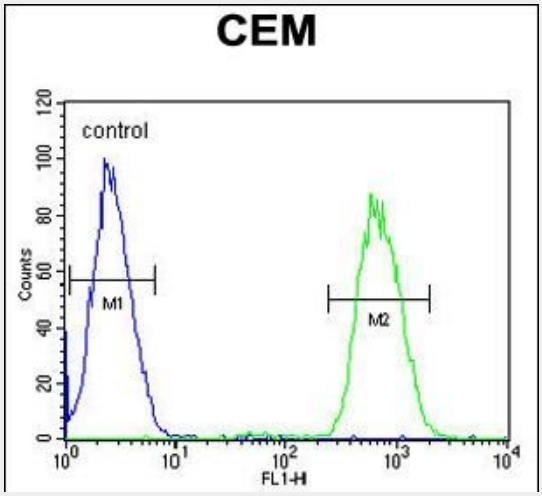


All lanes : Anti-GAL3ST1 Antibody (Center) at 1:2000 dilution Lane 1: Human kidney lysate Lane 2: Mouse kidney lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 49 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Formalin-fixed and paraffin-embedded human brain tissue reacted with GAL3ST1 Antibody (Center), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



GAL3ST1 Antibody (Center) (Cat. #AP8884c) flow cytometric analysis of CEM cells (right

histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

GAL3ST1 Antibody (Center) - Background

Sulfonation, an important step in the metabolism of many drugs, xenobiotics, hormones, and neurotransmitters, is catalyzed by sulfotransferases. GAL3ST1 is galactosylceramide sulfotransferase which catalyzes the conversion between 3'-phosphoadenylylsulfate + a galactosylceramide to adenosine 3',5'-bisphosphate + galactosylceramide sulfate. Activity of this sulfotransferase is enhanced in renal cell carcinoma.

GAL3ST1 Antibody (Center) - References

Siegrist,H.P., et.al., Biochim. Biophys. Acta 489 (1), 58-63 (1977)
Stein,C., et.al., J. Biol. Chem. 264 (2), 1252-1259 (1989)