

MFSD2B Antibody

Catalog # ASC11225

Specification

MFSD2B Antibody - Product Information

Application Primary Accession Other Accession Reactivity Host Clonality Isotype Application Notes WB, E <u>A6NFX1</u> <u>NP_001073942</u>, <u>122937339</u> Human, Rat Rabbit Polyclonal IgG MFSD2A antibody can be used for detection of MFSD2A by Western blot at 1 -2 μg/mL.

MFSD2B Antibody - Additional Information

Gene ID Target/Specificity MFSD2B; 388931

Reconstitution & Storage

Antibody can be stored at 4°C up to one year. Antibodies should not be exposed to prolonged high temperatures.

Precautions MFSD2B Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

MFSD2B Antibody - Protein Information

Name MFSD2B {ECO:0000303|PubMed:29045386, ECO:0000312|HGNC:HGNC:37207}

Function

Lipid transporter that specifically mediates export of sphingosine-1-phosphate in red blood cells and platelets (PubMed:29045386). Sphingosine-1-phosphate is a signaling sphingolipid and its export from red blood cells into in the plasma is required for red blood cell morphology (By similarity). Sphingosine-1-phosphate export from platelets is required for platelet aggregation and thrombus formation (By similarity). Mediates the export of different sphingosine-1-phosphate (S1P) species, including S1P(d18:0) (sphinganine 1-phosphate), S1P (d18:1) (sphing-4-enine 1-phosphate) and S1P (d18:2) (sphinga-4E,14Z-dienine-1-phosphate) (Probable). Release of sphingosine-1-phosphate is facilitated by a proton gradient (By similarity). In contrast, cations, such as sodium, are not required to drive sphingosine-1-phosphate transport (Probable). In addition to export, also able to mediate S1P import (By similarity). Does not transport lysophosphatidylcholine (LPC) (Probable).

Cellular Location



Cell membrane; Multi-pass membrane protein. Note=Localizes to the cell membrane and intracellular membranes.

MFSD2B Antibody - Protocols

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

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

MFSD2B Antibody - Images



Western blot analysis of MFSD2B in rat lung tissue lysate with MFSD2B antibody at (A) 1 and (B) 2 μ g/mL.

MFSD2B Antibody - Background

MFSD2B Antibody: Multidrug transporters, such as MFSD2B, are membrane proteins that expel a wide spectrum of cytotoxic compounds from the cell and render cells resistant to multiple drugs. Major Facilitator Superfamily (MFS) members are capable of transporting various substrates such as sugars, polyols, drugs, neurotransmitters, amino acids, peptides, and inorganic anions, although most members are substrate-specific. MFSD2B is closely related to MFSD2A, which is expressed in many tissues and is highly induced in liver and brown adipose tissue (BAT) during fasting, playing a major role in the induction of MFSD2A expression during adaptive thermogenesis. Unlike MFSD2A, MFSD2B is expressed in few tissues and at relatively low levels, and is not induced during fasting, suggesting that MFSD2B may play other roles.

MFSD2B Antibody - References

Fluman N and Bibi E. Bacterial multidrug transport through the lens of the major facilitator superfamily. Biochim. Biophys. Acta.2009; 1794:738-47.



Law CJ, Maloney PC, and Wang DN. Ins and outs of major facilitator superfamily antiporters. Annu. Rev. Microbiol.2008; 62:289-305.

Angers M, Uldry M, Kong D, et al. Mfsd2a encodes a novel major facilitator superfamily domain-containing protein highly induced in brown adipose tissue during fasting and adaptive thermogenesis. Biochem. J.2008; 416:347-55