

MFSD2B Antibody

Catalog # ASC11225

Product Information

Application	WB, E
Primary Accession	A6NFX1
Other Accession	NP_001073942 , 122937339
Reactivity	Human, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	53743
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	MFSD2A antibody can be used for detection of MFSD2A by Western blot at 1 - 2 µg/mL.

Additional Information

Gene ID	388931
Other Names	Major facilitator superfamily domain-containing protein 2B, MFSD2B
Target/Specificity	MFSD2B;
Reconstitution & Storage	MFSD2B antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. 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.

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 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.

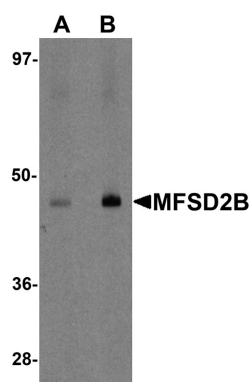
Background

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.

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

Images



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

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.