

MFSD1 Antibody

Catalog # ASC11223

Product Information

Application	WB, E, IHC-P
Primary Accession	Q9H3U5
Other Accession	NP_073573 , 269847416
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	51209
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	MFSD1 antibody can be used for detection of MFSD1 by Western blot at 1 - 2 μ g/mL. Antibody can also be used for immunohistochemistry starting at 10 μ g/mL.

Additional Information

Gene ID	64747
Other Names	Major facilitator superfamily domain-containing protein 1, Smooth muscle cell-associated protein 4, SMAP-4, MFSD1, SMAP4
Target/Specificity	MFSD1;
Reconstitution & Storage	MFSD1 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	MFSD1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	MFSD1 (HGNC:25874)
Function	Lysosomal dipeptide uniporter that selectively exports lysine, arginine or histidine-containing dipeptides with a net positive charge from the lysosome lumen into the cytosol (PubMed: 38507452). Could play a role in a specific type of protein O-glycosylation indirectly regulating macrophages migration and tissue invasion (PubMed: 30910009). Also essential for liver homeostasis (By similarity).
Cellular Location	Lysosome membrane; Multi-pass membrane protein. Note=Also detected in Golgi when overexpressed.

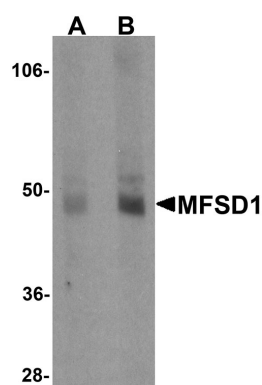
Background

MFSD1 Antibody: Multidrug transporters, such as MFSD1, are membrane proteins that expel a wide spectrum of cytotoxic compounds from the cell and render cells resistant to multiple drugs. The Major Facilitator Superfamily (MFS) is a large and diverse group of secondary transporters that include uniporters, symporters, and antiporters. Members of this family are found in all living organisms and are highly represented in bacteria. 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. MFS have provided important insight into the mechanism underlying multidrug transport. MFSD1 is still poorly understood.

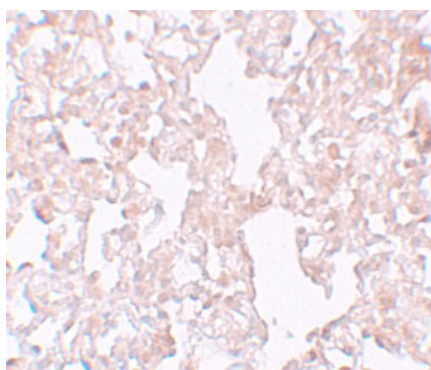
References

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.
Saidijam M, Benedetti G, Ren Q, et al. Microbial drug efflux proteins of the major facilitator superfamily. *Curr. Drug Targets*2006; 7:793-811.

Images



Western blot analysis of MFSD1 in human lung tissue lysate with MFSD1 antibody at (A) 1 and (B) 2 µg/mL.



Immunohistochemistry of MFSD1 in rat lung tissue with MFSD1 antibody at 10 µg/mL.

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