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MFSD2A Rabbit pAb

Rabbit Polyclonal Antibody
Catalog # AP93287

Product Information

Application	WB, IHC-P, IHC-F, IF, FC, E
Primary Accession	Q8NA29
Reactivity	Human, Mouse, Rat
Predicted	Rabbit, Pig, Chicken
Host	Rabbit
Clonality	Polyclonal
Calculated MW	60170
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human MFSD2A
Epitope Specificity	331-430/543
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Endoplasmic reticulum membrane.
SIMILARITY	Belongs to the major facilitator superfamily.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	MFSD2 is a 543 amino acid multi-pass membrane protein of the endoplasmic reticulum that is involved in beta-adrenergic signaling during thermogenesis. Existing as three alternatively spliced isoforms, MFSD2 plays a role in G1 regulation and is encoded by a gene that maps to human chromosome 1p34.2. Human chromosome 1 spans 260 million base pairs, contains over 3,000 genes, comprises nearly 8% of the human genome and houses a large number of disease-associated genes, including those that are involved in familial adenomatous polyposis, Stickler syndrome, Parkinson's disease, Gaucher disease, schizophrenia and Usher syndrome.

Additional Information

Gene ID	84879
Other Names	Major facilitator superfamily domain containing 2; Major facilitator superfamily domain containing 2A; Major facilitator superfamily domain-containing protein 2A; MFS2A_HUMAN; MFSD2; MFSD2A.
Dilution	WB 1:500-2000 IHC-P 1:100-500 IHC-F 1:100-500 Flow-Cyt 0.2ug/test IF 1:100-500 ELISA 1:5000-10000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	MFSD2A {ECO:0000303|PubMed:18694395, ECO:0000312|HGNC:HGNC:25897}
Function	Sodium-dependent lysophosphatidylcholine (LPC) symporter, which plays an essential role for blood-brain barrier formation and function (PubMed:24828040, PubMed:32572202, PubMed:34135507). Specifically expressed in endothelium of the blood-brain barrier of micro-vessels and transports LPC into the brain (By similarity). Transport of LPC is essential because it constitutes the major mechanism by which docosahexaenoic acid (DHA), an omega-3 fatty acid that is essential for normal brain growth and cognitive function, enters the brain (PubMed:26005868, PubMed:34135507). Transports LPC carrying long-chain fatty acids such LPC oleate and LPC palmitate with a minimum acyl chain length of 14 carbons (By similarity). Does not transport docosahexaenoic acid in unesterified fatty acid (By similarity). Specifically required for blood-brain barrier formation and function, probably by mediating lipid transport (By similarity). Not required for central nervous system vascular morphogenesis (By similarity). Acts as a transporter for tunicamycin, an inhibitor of asparagine-linked glycosylation (PubMed:21677192). In placenta, acts as a receptor for ERVFRD-1/syncytin-2 and is required for trophoblast fusion (PubMed:18988732, PubMed:23177091).
Cellular Location	Cell membrane; Multi-pass membrane protein. Endoplasmic reticulum membrane {ECO:0000250|UniProtKB:Q9DA75}; Multi-pass membrane protein. Note=Cytoplasmic punctae that may represent vesicles shuttling between the endoplasmic reticulum and the plasma membrane (PubMed:21677192).
Tissue Location	In placenta, associated with trophoblast cells.

Background

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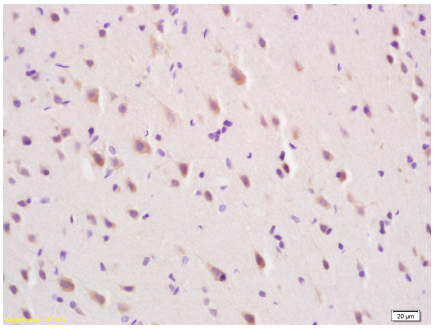
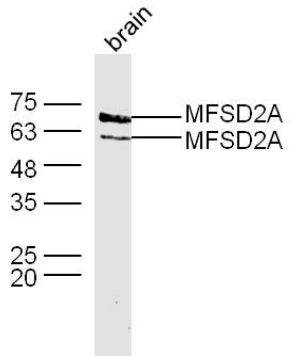
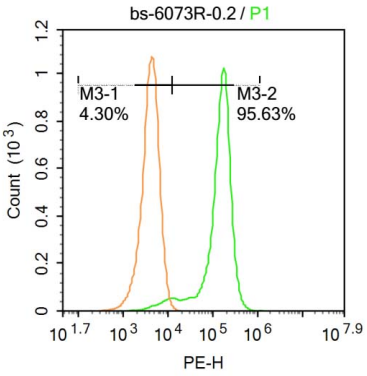
Images







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