

Anti-FADS1 Rabbit Monoclonal Antibody

Catalog # ABO16076

Product Information

Application	WB, IHC, IF, ICC, FC
Primary Accession	O60427
Host	Rabbit
Isotype	IgG
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Format	Liquid
Description	Anti-FADS1 Rabbit Monoclonal Antibody . Tested in WB, IHC, ICC/IF, Flow Cytometry applications. This antibody reacts with Human, Mouse, Rat.

Additional Information

Gene ID	3992
Other Names	Acyl-CoA (8-3)-desaturase, 1.14.19.44, Delta(5) fatty acid desaturase, D5D, Delta-5 desaturase, Fatty acid desaturase 1, FADS1 {ECO:0000303 PubMed:10860662, ECO:0000312 HGNC:HGNC:3574}
Calculated MW	51964
Application Details	WB 1:500-1:2000 IHC 1:50-1:200 ICC/IF 1:50-1:200 FC 1:50
Source	Eukaryota
Contents	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
Clone Names	Clone: 26F55
Immunogen	A synthesized peptide derived from FADS1
Purification	Affinity-chromatography
Storage	Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.

Protein Information

Name	FADS1 {ECO:0000303 PubMed:10860662, ECO:0000312 HGNC:HGNC:3574}
Function	[Isoform 1]: Acts as a front-end fatty acyl-coenzyme A (CoA) desaturase that

introduces a cis double bond at carbon 5 located between a preexisting double bond and the carboxyl end of the fatty acyl chain. Involved in biosynthesis of highly unsaturated fatty acids (HUFA) from the essential polyunsaturated fatty acids (PUFA) linoleic acid (LA) (18:2n-6) and alpha-linolenic acid (ALA) (18:3n-3) precursors. Specifically, desaturates dihomo-gamma-linoleoate (DGLA) (20:3n-6) and eicosatetraenoate (ETA) (20:4n-3) to generate arachidonate (AA) (20:4n-6) and eicosapentaenoate (EPA) (20:5n-3), respectively (PubMed:[10601301](#), PubMed:[10769175](#)). As a rate limiting enzyme for DGLA (20:3n-6) and AA (20:4n-6)-derived eicosanoid biosynthesis, controls the metabolism of inflammatory lipids like prostaglandin E2, critical for efficient acute inflammatory response and maintenance of epithelium homeostasis. Contributes to membrane phospholipid biosynthesis by providing AA (20:4n-6) as a major acyl chain esterified into phospholipids. In particular, regulates phosphatidylinositol-4,5-bisphosphate levels, modulating inflammatory cytokine production in T-cells (By similarity). Also desaturates (11E)-octadecenoate (trans-vaccenoate)(18:1n-9), a metabolite in the biohydrogenation pathway of LA (18:2n-6) (By similarity).

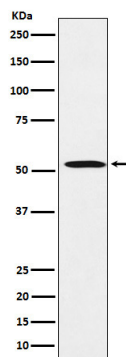
Cellular Location

[Isoform 1]: Endoplasmic reticulum membrane
{ECO:0000250|UniProtKB:A4UVI1}; Multi-pass membrane protein
{ECO:0000250|UniProtKB:A4UVI1}. Mitochondrion

Tissue Location

Widely expressed, with highest levels in liver, brain, adrenal gland and heart. Highly expressed in fetal liver and brain.

Images



Western blot analysis of FADS1 expression in HepG2 cell lysate.

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