

Anti-FADS1 Rabbit Monoclonal Antibody
Catalog # ABO16076

Specification

Anti-FADS1 Rabbit Monoclonal Antibody - 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.

Anti-FADS1 Rabbit Monoclonal Antibody - 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

52 kDa KDa

Application Details

WB 1:500-1:2000
IHC 1:50-1:200
ICC/IF 1:50-1:200
FC 1:50

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.

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.

Anti-FADS1 Rabbit Monoclonal Antibody - 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

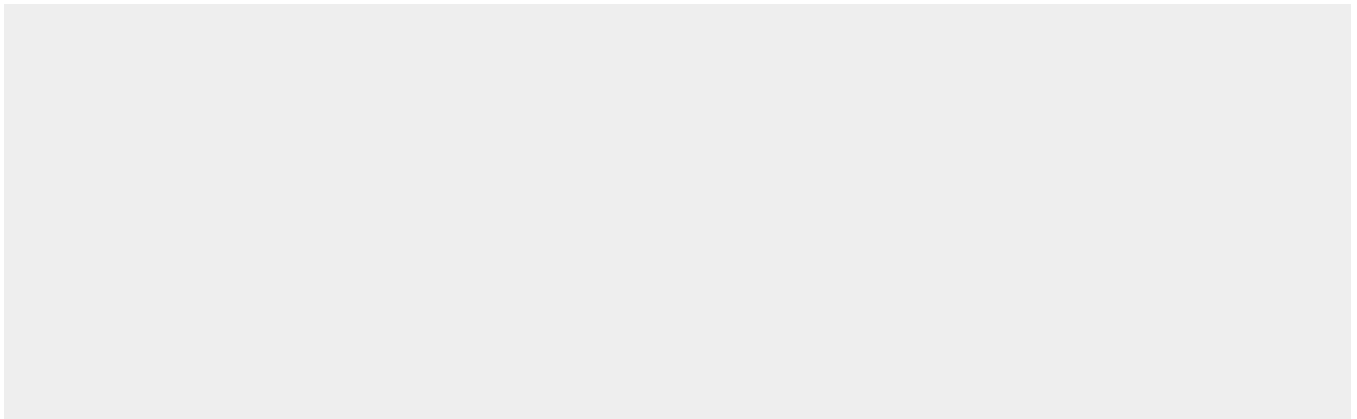
Widely expressed, with highest levels in liver, brain, adrenal gland and heart. Highly expressed in fetal liver and brain.

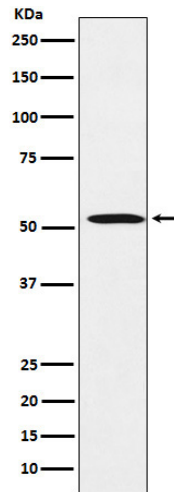
Anti-FADS1 Rabbit Monoclonal Antibody - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-FADS1 Rabbit Monoclonal Antibody - Images





Western blot analysis of FADS1 expression in HepG2 cell lysate.