

FADS1 antibody - N-terminal region
Rabbit Polyclonal Antibody
Catalog # AI12012**Specification**

FADS1 antibody - N-terminal region - Product Information

Application	WB
Primary Accession	O60427
Other Accession	NM_013402 , NP_037534
Reactivity	Human, Mouse, Rat, Rabbit, Pig, Horse, Bovine, Dog
Predicted	Human, Mouse, Rat, Pig, Chicken, Bovine, Dog
Host	Rabbit
Clonality	Polyclonal
Calculated MW	52kDa KDa

FADS1 antibody - N-terminal region - Additional Information**Gene ID** 3992

Alias Symbol **D5D, FADS6, FADSD5, FLJ38956, FLJ90273, LLCDL1, TU12**

Other Names

Fatty acid desaturase 1, 1.14.19.-, Delta(5) fatty acid desaturase, D5D, Delta(5) desaturase, Delta-5 desaturase, FADS1, FADSD5

Format

Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.

Reconstitution & Storage

Add 50 ul of distilled water. Final anti-FADS1 antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at 20°C. Avoid repeat freeze-thaw cycles.

Precautions

FADS1 antibody - N-terminal region is for research use only and not for use in diagnostic or therapeutic procedures.

FADS1 antibody - N-terminal region - 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

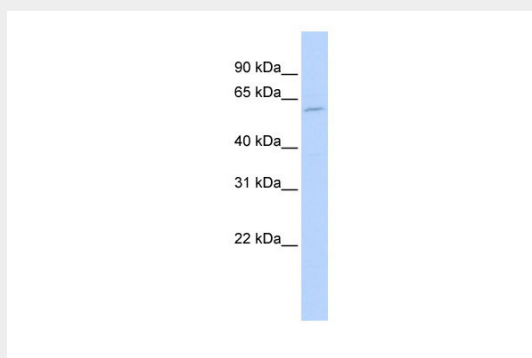
Widely expressed, with highest levels in liver, brain, adrenal gland and heart. Highly expressed in fetal liver and brain.

FADS1 antibody - N-terminal region - 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](#)

FADS1 antibody - N-terminal region - Images



WB Suggested Anti-FADS1 Antibody Titration: 0.2-1 µg/ml

ELISA Titer: 1:312500

Positive Control: 721_B cell lysate

FADS1 is strongly supported by BioGPS gene expression data to be expressed in Human 721_B cells

FADS1 antibody - N-terminal region - References

Rzehak, P., (ed) Br. J. Nutr., 1-7 (2008) In press
Reconstitution and Storage: For short term use, store at 2-8°C up to 1 week. For long term storage, store at -20°C in small aliquots to prevent freeze-thaw cycles.