

**Product Name: FADS1 (6Q19) Rabbit Monoclonal Antibody**  
**Catalog #: AMRe10796**

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## Summary

<b>Production Name</b>	FADS1 (6Q19) Rabbit Monoclonal Antibody
<b>Description</b>	Rabbit Monoclonal Antibody
<b>Host</b>	Rabbit
<b>Application</b>	WB
<b>Reactivity</b>	Human,Mouse,Rat

## Performance

<b>Conjugation</b>	Unconjugated
<b>Modification</b>	Unmodified
<b>Isotype</b>	IgG
<b>Clonality</b>	Monoclonal
<b>Form</b>	Liquid
<b>Storage</b>	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
<b>Buffer</b>	Supplied in 50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% New type preservative N and 0.05% BSA.
<b>Purification</b>	Affinity purification

## Immunogen

<b>Gene Name</b>	FADS1 {ECO:0000303 PubMed:10860662, ECO:0000312 HGNC:HGNC:3574}
<b>Alternative Names</b>	D5D; Fads1; FADS6; FADSD5; LLCDL1; TU12;
<b>Gene ID</b>	3992.0
<b>SwissProt ID</b>	O60427.A synthetic peptide of human FADS1

## Application

<b>Dilution Ratio</b>	WB: 1:1000
<b>Molecular Weight</b>	52kDa

## Background

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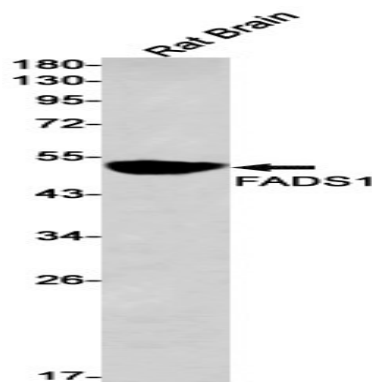
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Component of a lipid metabolic pathway that catalyzes biosynthesis of highly unsaturated fatty acids (HUFA) from precursor essential polyunsaturated fatty acids (PUFA) linoleic acid (LA) (18:2n-6) and alpha-linolenic acid (ALA) (18:3n-3). [Isoform 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:<a href="http://www.uniprot.org/citations/10601301" target="\_blank">10601301</a>, PubMed:<a href="http://www.uniprot.org/citations/10769175" target="\_blank">10769175</a>). 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).

## Research Area

## Image Data



Western blot detection of FADS1 in Rat Brain lysates using FADS1 antibody(1:1000 diluted).

## Note

For research use only.