10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

# Fads3 Antibody - N-terminal region
**Rabbit Polyclonal Antibody**
**Catalog # AI13061**

## Specification

### Fads3 Antibody - N-terminal region - Product Information

| | |
|---|---|
| Application | **WB** |
| Primary Accession | Q8K1P9 |
| Other Accession | NM_173137, NP_775160 |
| Reactivity | **Human, Mouse, Rat, Rabbit, Pig, Horse, Bovine, Guinea Pig, Dog** |
| Predicted | **Human, Mouse, Rat, Rabbit, Pig, Horse, Bovine, Guinea Pig, Dog** |
| Host | **Rabbit** |
| Clonality | **Polyclonal** |
| Calculated MW | **49kDa KDa** |

### Fads3 Antibody - N-terminal region - Additional Information

**Gene ID** 286922

**Other Names**
Fatty acid desaturase 3, 1.14.19.-, Fads3

**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-Fads3 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**
Fads3 Antibody - N-terminal region is for research use only and not for use in diagnostic or therapeutic procedures.

### Fads3 Antibody - N-terminal region - Protein Information

**Name** Fads3 {ECO:0000303|PubMed:19752397, ECO:0000303|PubMed:24070791}

**Function**
Mammals have different sphingoid bases that differ in their length and/or pattern of desaturation and hydroxyl groups. The predominant sphingoid base that comprises mammalian ceramides is sphing-4-enine (sphingosine or SPH) which has a trans (E) desaturation at carbon 4. FADS3 is a desaturase that introduces a cis (Z) double bond between carbon 14 and carbon 15 of the sphingoid base (also known as long chain base, LCB), producing LCBs such as sphinga-4,14-dienine (SPD, d18:2(4E,14Z)) from SPH. Prefers SPH-containing ceramides (N-acylsphing-4-enines) as substrates. Capable of metabolizing also the SPH in its free form. SPD ceramides occur widely in mammalian tissues and cells. Due to their unusual structure containing

a cis double bond, SPD ceramides may have an opposite, negative role in lipid microdomain formation relative to conventional ceramides. Could be involved in the detoxification of 1-deoxy sphingolipids, by desaturating the cytotoxic 1-deoxysphinganine (1-deoxySA, m18:0), produced under pathological conditions, to 1-deoxysphingenine (1-deoxysphingosine, 1-deoxySO, m18:1). Although prefers SPH-containing ceramides (N-acylsphing-4- enines) as substrates, it also exhibits activity toward dihydrosphingosine-containing CERs (N-acylsphinganines) and produces 14Z-SPH-containing sphingolipids. Its desaturase mechanism involves an electron transfer facilitated by cytochrome b5 (By similarity). FADS3 also acts as a methyl-end fatty acyl coenzyme A (CoA) desaturase that introduces a cis double bond between the preexisting double bond and the terminal methyl group of the fatty acyl chain. Desaturates (11E)- octadecenoate (trans-vaccenoate, the predominant trans fatty acid in human milk) at carbon 13 to generate (11E,13Z)-octadecadienoate (also known as conjugated linoleic acid 11E,13Z-CLA) (PubMed:<a href="http://www.uniprot.org/citations/24070791" target="_blank">24070791</a>, PubMed:<a href="http://www.uniprot.org/citations/30262139" target="_blank">30262139</a>).

### Cellular Location
Endoplasmic reticulum membrane {ECO:0000250|UniProtKB:Q9Y5Q0}; Multi-pass membrane protein

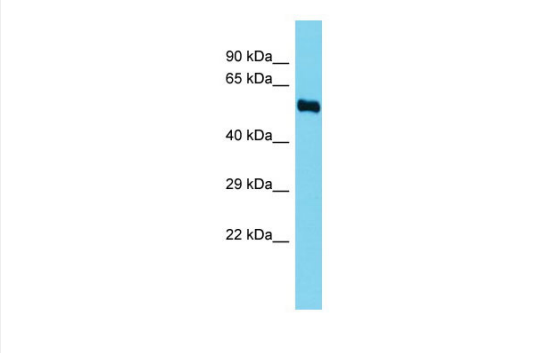
### Tissue Location
Essentially expressed in liver and kidney and to a lesser extent in heart, adipose tissue, stomach and pancreas (at protein level) (PubMed:19752397). Higher expression in lactating mammary gland than in liver (PubMed:30262139)

## Fads3 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 Cytomety
- Cell Culture

## Fads3 Antibody - N-terminal region - Images




Host: Rabbit
Target Name: Fads3
Sample Tissue: Rat Kidney lysates

10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Antibody Dilution: 1.0µg/ml

**Fads3 Antibody - N-terminal region - References**

D'Andrea S.,et al.Submitted (JUL-2002) to the EMBL/GenBank/DDBJ databases.