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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:24070791, PubMed:30262139).

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

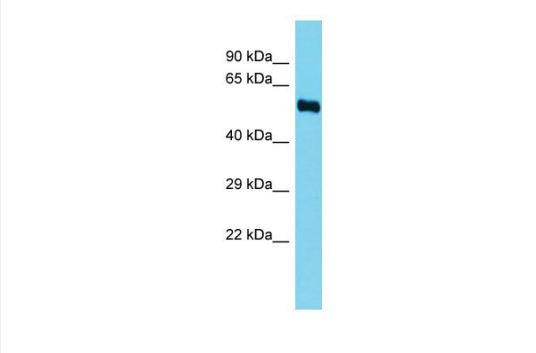
Tissue Location
Essentially expressed in liver and kidney and to a lesser extent in heart, adipose tissue, stomach and pancreas (at protein level) (PubMed:19752397). Higher expression in lactating mammary gland than in liver (PubMed:30262139)

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

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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.