

Recombinant Human FADS1

Cat. No. FADS1-28816TH **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant fragment corresponding to amino acids 1-99 of Human FADS1, with a N terminal proprietary tag; predicted MW: 36.52 inclusive of tag. O60427,
Species	Human
Source	Wheat Germ
ProteinLength	99 amino acids
Description	The protein encoded by this gene is a member of the fatty acid desaturase (FADS) gene family. Desaturase enzymes regulate unsaturation of fatty acids through the introduction of double bonds between defined carbons of the fatty acyl chain. FADS family members are considered fusion products composed of an N-terminal cytochrome b5-like domain and a C-terminal multiple membrane-spanning desaturase portion, both of which are characterized by conserved histidine motifs. This gene is clustered with family members FADS1 and FADS2 at 11q12-q13.1; this cluster is thought to have arisen evolutionarily from gene duplication based on its similar exon/intron organization.
Molecular Weight	36.520kDa inclusive of tags
Tissue specificity	Expressed in many tissues, it is most abundant in the liver, brain, adrenal gland and heart. Found as well in skeletal muscle, lung, placenta, kidney, pancreas and retina.
Form	Liquid

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

Purity	Proprietary Purification
Storage buffer	pH: 8.00 Constituents: 0.3% Glutathione, 0.79% Tris HCl
Storage	Shipped on dry ice. Upon delivery aliquot and store at -80oC. Avoid freeze / thaw cycles.
Sequences of amino acids	MAPDPVAAETAAQGPTPRYFTWDEVAQRSGCEERWLVIDRKVYNISEFTRRHPPGG SRVISHYAGQDATDPFVAFHINKGLVKKYMNSLLIGELSPEQPS
Sequence Similarities	Belongs to the fatty acid desaturase family. Contains 1 cytochrome b5 heme-binding domain.

GENE INFORMATION

Gene Name	FADS1 fatty acid desaturase 1 [Homo sapiens]
Official Symbol	FADS1
Synonyms	FADS1; fatty acid desaturase 1; LLCDL1; D5D; delta 5 desaturase; FADS6; FADSD5; TU12;
Gene ID	3992
mRNA Refseq	NM_013402
Protein Refseq	NP_037534
MIM	606148
Uniprot ID	O60427

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Chromosome Location	11q12-q13.1
Pathway	Biosynthesis of unsaturated fatty acids, organism-specific biosystem; Biosynthesis of unsaturated fatty acids, conserved biosystem; Fatty acid, triacylglycerol, and ketone body metabolism, organism-specific biosystem; Metabolism of lipids and lipoproteins, organism-specific biosystem; Regulation of Lipid Metabolism by Peroxisome proliferator-activated receptor alpha (PPARalpha), organism-specific biosystem;
Function	C-5 sterol desaturase activity; heme binding; oxidoreductase activity;

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