

Recombinant Mouse Fads2 Protein, Myc/DDK-tagged

Cat. No. Fads2-2905M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Purified recombinant protein of mouse full-length fatty acid desaturase 2 (Fads2), with C-terminal MYC/DDK tag, expressed in HEK293T cells.
Species	Mouse
Source	HEK293
Description	<p>Involved in the 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, acting as a fatty acyl-coenzyme A (CoA) desaturase that introduces a cis double bond at carbon 6 of the fatty acyl chain. Catalyzes the first and rate limiting step in this pathway which is the desaturation of LA (18:2n-6) and ALA (18:3n-3) into gamma-linoleate (GLA) (18:3n-6) and stearidonate (18:4n-3), respectively. Subsequently, in the biosynthetic pathway of HUFA n-3 series, it desaturates tetracosapentaenoate (24:5n-3) to tetracosahexaenoate (24:6n-3), which is then converted to docosahexaenoate (DHA)(22:6n-3), an important lipid for nervous system function. It can also desaturate (11E)-octadecenoate (trans-vaccenoate) at carbon 6 generating (6Z,11E)-octadecadienoate. In addition to Delta-6 activity, this enzyme exhibits Delta-8 activity with slight biases toward n-3 fatty acyl-CoA substrates.</p>
Molecular Mass	52.4 kDa
Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining

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Stability	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
Storage	Store at -80 centigrade after receiving vials.
Concentration	>50 µg/mL as determined by microplate BCA method
Storage Buffer	25 mM Tris.HCl, pH 7.3, 100 mM glycine, 10% glycerol.

GENE INFORMATION

Gene Name	Fads2 fatty acid desaturase 2 [<i>Mus musculus</i> (house mouse)]
Official Symbol	Fads2
Synonyms	FADS2; fatty acid desaturase 2; D6D; delta-6 desaturase; delta(6) desaturase; delta-6 fatty acid desaturase; delta(6) fatty acid desaturase; Fadsd2; 2900042M13Rik
Gene ID	56473
mRNA Refseq	NM_019699
Protein Refseq	NP_062673
UniProt ID	Q9Z0R9

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