Datasheet for ABIN7553872

FADS1 Protein (AA 1-444) (His tag)

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Overview

Quantity:	1 mg
Target:	FADS1
Protein Characteristics:	AA 1-444
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This FADS1 protein is labelled with His tag.

Product Details

Purpose:	Custom-made recombinant FADS1 Protein expressed in mammalian cells.
Sequence:	MAPDPVAAET AAQGPTPRYF TWDEVAQRSG CEERWLVIDR KVYNISEFTR RHPGGSRVIS HYAGQDATDP FVAFHINKGL VKKYMNSLLI GELSPEQPSF EPTKNKELTD EFRELRATVE RMGLMKANHV FFLLYLLHIL LLDGAAWLTL WVFGTSFLPF LLCAVLLSAV QAQAGWLQHD FGHLSVFSTS KWNHLLHHFV IGHLKGAPAS WWNHMHFQHH AKPNCFRKDP DINMHPFFFA LGKILSVELG KQKKKYMPYN HQHKYFFLIG PPALLPLYFQ WYIFYFVIQR KKWVDLAWMI TFYVRFFLTY VPLLGLKAFL GLFFIVRFLE SNWFVWVTQM NHIPMHIDHD RNMDWVSTQL QATCNVHKSA FNDWFSGHLN FQIEHHLFPT MPRHNYHKVA PLVQSLCAKH GIEYQSKPLL SAFADIIHSL KESGQLWLDA YLHQ **Sequence without tag. The proposed Purification-Tag is based on experiences with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.**
Specificity:	If you are looking for a specific domain and are interested in a partial protein or a different isoform, please contact us regarding an individual offer.

Product Details

Characteristics:	Key Benefits: • Made to order protein - from design to production - by highly experienced protein experts. • Protein expressed in mammalian cells and purified in one-step affinity chromatography • The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins. • State-of-the-art algorithm used for plasmid design (Gene synthesis). This protein is a made-to-order protein and will be made for the first time for your order. Our experts in the lab try to ensure that you receive soluble protein. If you are not interested in a full length protein, please contact us for individual protein fragments. The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.
Purity:	> 90 % as determined by Bis-Tris PAGE, anti-tag ELISA, Western Blot and analytical SEC (HPLC)
Grade:	custom-made

Target Details

Target:	FADS1
Alternative Name:	FADS1 (FADS1 Products)
Background:	Acyl-CoA (8-3)-desaturase (EC 1.14.19.44) (Delta(5) fatty acid desaturase) (D5D) (Delta(5) desaturase) (Delta-5 desaturase) (Fatty acid desaturase 1),FUNCTION: [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:10601301, PubMed:10769175). 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

Target Details

	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). {ECO:0000250|UniProtKB:Q920L1, ECO:0000250|UniProtKB:Q920R3, ECO:0000269|PubMed:10601301, ECO:0000269|PubMed:10769175}., FUNCTION: [Isoform 2]: Does not exhibit any catalytic activity toward 20:3n-6, but it may enhance FADS2 activity. {ECO:0000250|UniProtKB:A4UVI1}.
Molecular Weight:	52.0 kDa
UniProt:	O60427
Pathways:	Regulation of Lipid Metabolism by PPARalpha

Application Details

Application Notes:	We expect the protein to work for functional studies. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months

