Datasheet for ABIN7553654

DGAT1 Protein (AA 1-488) (His tag)

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Overview

Quantity:	1 mg
Target:	DGAT1
Protein Characteristics:	AA 1-488
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This DGAT1 protein is labelled with His tag.

Product Details

Purpose:	Custom-made recombinant DGAT1 Protein expressed in mammalian cells.
Sequence:	MGDRGSSRRR RTGSRPSSHG GGGPAAAEEE VRDAAAGPDV GAAGDAPAPA PNKDGDAGVG SGHWELRCHR LQDSLFSSDS GFSNYRGILN WCVVMLILSN ARLFLENLIK YGILVDPIQV VSLFLKDPYS WPAPCLVIAA NVFAVAAFQV EKRLAVGALT EQAGLLLHVA NLATILCFPA AVVLLVESIT PVGSLLALMA HTILFLKLFS YRDVNSWCRR ARAKAASAGK KASSAAAPHT VSYPDNLTYR DLYYFLFAPT LCYELNFPRS PRIRKRFLLR RILEMLFFTQ LQVGLIQQWM VPTIQNSMKP FKDMDYSRII ERLLKLAVPN HLIWLIFFYW LFHSCLNAVA ELMQFGDREF YRDWWNSESV TYFWQNWNIP VHKWCIRHFY KPMLRRGSSK WMARTGVFLA SAFFHEYLVS VPLRMFRLWA FTGMMAQIPL AWFVGRFFQG NYGNAAVWLS LIIGQPIAVL MYVHDYYVLN YEAPAAEA **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

Product Details

	isoform, please contact us regarding an individual offer.
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:	DGAT1
Alternative Name:	DGAT1 (DGAT1 Products)
Background:	Diacylglycerol O-acyltransferase 1 (EC 2.3.1.20) (ACAT-related gene product 1) (Acyl-CoA retinol O-fatty-acyltransferase) (ARAT) (Retinol O-fatty-acyltransferase) (EC 2.3.1.76) (Diglyceride acyltransferase),FUNCTION: Catalyzes the terminal and only committed step in triacylglycerol synthesis by using diacylglycerol and fatty acyl CoA as substrates (PubMed:16214399, PubMed:18768481, PubMed:28420705, PubMed:9756920, PubMed:32433611, PubMed:32433610). Highly expressed in epithelial cells of the small intestine and its activity is essential for the absorption of dietary fats (PubMed:18768481). In liver, plays a role in esterifying exogenous fatty acids to glycerol, and is required to synthesize fat for storage (PubMed:16214399). Also present in female mammary glands, where it produces fat in the milk (By similarity). May be involved in VLDL (very low density lipoprotein) assembly (PubMed:18768481). In contrast to DGAT2 it is not essential for survival (By similarity). Functions as the major acyl-CoA retinol acyltransferase (ARAT) in the skin, where it acts to

Target Details

	maintain retinoid homeostasis and prevent retinoid toxicity leading to skin and hair disorders (PubMed:16214399). Exhibits additional acyltransferase activities, includin acyl CoA:monoacylglycerol acyltransferase (MGAT), wax monoester and wax diester synthases (By similarity). Also able to use 1-monoalkylglycerol (1-MAkG) as an acyl acceptor for the synthesis of monoalkyl-monoacylglycerol (MAMAG) (PubMed:28420705). {ECO:0000250|UniProtKB:Q8MK44, ECO:0000250|UniProtKB:Q9Z2A7, ECO:0000269|PubMed:16214399, ECO:0000269|PubMed:18768481, ECO:0000269|PubMed:28420705, ECO:0000269|PubMed:32433610, ECO:0000269|PubMed:32433611, ECO:0000269|PubMed:9756920}.
Molecular Weight:	55.3 kDa
UniProt:	O75907
Pathways:	Hormone Transport

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