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Datasheet for ABIN3114463

MGAT3 Protein (AA 1-533) (Strep Tag)

Overview

Quantity:	250 µg
Target:	MGAT3
Protein Characteristics:	AA 1-533
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This MGAT3 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Brand:	AliCE®
Sequence:	MKMRRYKFLF MFCMAGLCLI SFLHFFKTLS YVTFPRELAS LSPNLVSSFF WNNAPVTPQA SPEPGGPDLL RTPLYSHSPL LQPLPPSKAA EELHRVDLVL PEDTTEYFVR TKAGGVCFKP GTKMLERPPP GRPEEKPEGA NGSSARRPPR YLLSARERTG GRGARRKWVE CVCLPGWHGP SCGVPTVVQY SNLPTKERLV PREVPRRVIN AINVNHEFDL LDVRFHELGD VVDAFVVCES NFTAYGEPRP LKFREMLTNG TFEYIRHKVL YVFLDHFPFG GRQDGWIADD YLRTFLTQDG VSRLRNLRPD DVFIIDDAE IPARDGVLFL KLYDGWTEPF AFHMRKSLYG FFWKQPGTLE VMSGCTVDML QAVYGLDGIR LRRRQYYTMP NFRQYENRTG HILVQWSLGS PLHFAGWHCS WCFTPEGIYF KLVSAQNGDF PRWGDYEDKR DLNYIRGLIR TGGWFDGTQQ EYPPADPSEH MYAPKYLLKN YDRFHLLDN PYQEPRSTAA GGWRHRGPEG RPPARGKLDE AEV Sequence without tag. The proposed Strep-Tag is based on experience s 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.

Characteristics:

Key Benefits:

- Made in Germany - from design to production - by highly experienced protein experts.
- Protein expressed with ALiCE® and purified in one-step affinity chromatography
- These proteins are normally active (enzymatically functional) as our customers have reported (not tested by us and not guaranteed).
- 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.

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.

Expression System:

- ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from *Nicotiana tabacum* c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.
- During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!

Concentration:

- The concentration of our recombinant proteins is measured using the absorbance at 280nm.
- The protein's absorbance will be measured against its specific reference buffer.
- We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.

Purification:

One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®).

Purity:

> 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).

Grade:

custom-made

Target Details

Target: MGAT3

Alternative Name: MGAT3 ([MGAT3 Products](#))

Background: Beta-1,4-mannosyl-glycoprotein 4-beta-N-acetylglucosaminyltransferase (EC 2.4.1.144) (N-glycosyl-oligosaccharide-glycoprotein N-acetylglucosaminyltransferase III) (GNT-III) (GlcNAc-T III) (N-acetylglucosaminyltransferase III),FUNCTION: It is involved in the regulation of the biosynthesis and biological function of glycoprotein oligosaccharides. Catalyzes the addition of N-acetylglucosamine in beta 1-4 linkage to the beta-linked mannose of the trimannosyl core of N-linked sugar chains, called bisecting N-acetylglucosamine (GlcNAc). It is one of the most important enzymes involved in the regulation of the biosynthesis of glycoprotein oligosaccharides. The addition of this bisecting GlcNAc residue alters not only the composition, but also the conformation of the N-glycan. The introduction of the bisecting GlcNAc residue results in the suppression of further processing and elongation of N-glycans, precluding the formation of beta-1,6 GlcNAc branching, catalyzed by MGAT5 since it is unable to use the bisected oligosaccharide as a substrate (PubMed:19403558). Addition of bisecting N-acetylglucosamine to CDH1/E-cadherin modulates CDH1 cell membrane location (PubMed:19403558). Inhibits NeuAc-alpha-2,3-Gal-beta-1,4-GlcNAc- formation which modulates sialylation levels and plays a role in cell migration regulation (PubMed:26801611). In brain, addition of bisecting N-acetylglucosamine to BACE1 blocks its lysosomal targeting in response to oxidative stress and further degradation which increases its location to early endosome and the APP cleavage (By similarity). {ECO:0000250|UniProtKB:Q10470, ECO:0000269|PubMed:19403558, ECO:0000269|PubMed:26801611}.

Molecular Weight: 61.3 kDa

UniProt: [Q09327](#)

Application Details

Application Notes: In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.

Comment: ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from *Nicotiana tabacum* c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.

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Application Details

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Restrictions: For Research Use only

Handling

Format: Liquid

Buffer: The buffer composition is at the discretion of the manufacturer.
Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol **Might differ depending on protein.**

Handling Advice: Avoid repeated freeze-thaw cycles.

Storage: -80 °C

Storage Comment: Store at -80°C.

Expiry Date: 12 months