Datasheet for ABIN3114494

ST3GAL4 Protein (AA 1-333) (Strep Tag)

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Overview

Quantity:	250 µg
Target:	ST3GAL4
Protein Characteristics:	AA 1-333
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This ST3GAL4 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Brand:	AliCE®
Sequence:	MVSKSRWKLL AMLALVLVVM VWYSISREDR YIELFYFPIP EKKEPCLQGE AESKASKLFG NYSRDQPIFL RLEDYFWVKT PSAYELPYGT KGSEDLLLRV LAITSSSIPK NIQSLRCRRC VVVGNGHRLR NSSLGDAINK YDVVIRLNNA PVAGYEGDVG SKTTMRLFYP ESAHFDPKVE NNPDTLLVLV AFKAMDFHWI ETILSDKKRV RKGFWKQPPL IWDVNPKQIR ILNPFFMEIA ADKLLSLPMQ QPRKIKQKPT TGLLAITLAL HLCDLVHIAG FGYPDAYNKK QTIHYYEQIT LKSMAGSGHN VSQEALAIKR MLEMGAIKNL TSF **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:

Product Details

- 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:	ST3GAL4

Target Details

Alternative Name:	ST3GAL4 (ST3GAL4 Products)
Background:	CMP-N-acetylneuraminate-beta-galactosamide-alpha-2,3-sialyltransferase 4 (Alpha 2,3-ST 4) (Beta-galactoside alpha-2,3-sialyltransferase 4) (EC 2.4.3.2) (EC 2.4.3.4) (Alpha 2,3-sialyltransferase IV) (Gal-NAc6S) (Gal-beta-1,3-GalNAc-alpha-2,3-sialyltransferase) (Gal-beta-1,4-GlcNAc-alpha-2,3-sialyltransferase) (N-acetyllactosaminide alpha-2,3-sialyltransferase) (EC 2.4.3.6) (SAT-3) (ST-4) (ST3Gal IV) (ST3GalIV) (ST3GalA.2) (STZ) (Sialyltransferase 4C) (SIAT4-C),FUNCTION: A beta-galactoside alpha2-3 sialyltransferase involved in terminal sialylation of glycoproteins and glycolipids (PubMed:8288606, PubMed:8611500). Catalyzes the transfer of sialic acid (N-acetyl-neuraminic acid, Neu5Ac) from the nucleotide sugar donor CMP-Neu5Ac onto acceptor Galbeta-(1->3)-GalNAc- and Galbeta-(1->4)-GlcNAc-terminated glycoconjugates through an alpha2-3 linkage (PubMed:8288606, PubMed:8611500). Plays a major role in hemostasis. Responsible for sialylation of plasma VWF/von Willebrand factor, preventing its recognition by asialoglycoprotein receptors (ASGPR) and subsequent clearance. Regulates ASGPR-mediated clearance of platelets (By similarity). Participates in the biosynthesis of the sialyl Lewis X epitopes, both on O- and N-glycans, which are recognized by SELE/E-selectin, SELP/P-selectin and SELL/L-selectin. Essential for selectin-mediated rolling and adhesion of leukocytes during extravasation (PubMed:25498912). Contributes to adhesion and transendothelial migration of neutrophils likely through terminal sialylation of CXCR2 (By similarity). In glycosphingolipid biosynthesis, sialylates GM1 and GA1 gangliosides to form GD1a and GM1b, respectively (PubMed:8288606). Metabolizes brain c-series ganglioside GT1c forming GQ1c (By similarity). Synthesizes ganglioside LM1 (IV3Neu5Ac-nLc4Cer), a major structural component of peripheral nerve myelin (PubMed:8611500). {ECO:0000250|UniProtKB:P61131, ECO:0000250|UniProtKB:Q91Y74, ECO:0000269|PubMed:25498912, ECO:0000269|PubMed:8288606, ECO:0000269|PubMed:8611500}.
Molecular Weight:	38.0 kDa
UniProt:	Q11206
Pathways:	Glycosaminoglycan Metabolic Process

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.

Application Details

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. 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!
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

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