Datasheet for ABIN3116287

GALNT13 Protein (AA 1-556) (Strep Tag)

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Overview

Quantity:	1 mg
Target:	GALNT13
Protein Characteristics:	AA 1-556
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This GALNT13 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence:	MRRFVYCKVV LATSLMWVLV DVFLLLYFSE CNKCDDKKER SLLPALRAVI SRNQEGPGEM GKAVLIPKDD QEKMKELFKI NQFNLMASDL IALNRSLPDV RLEGCKTKVY PDELPNTSVV IVFHNEAWST LLRTVYSVIN RSPHYLLSEV ILVDDASERD FLKLTLENYV KNLEVPVKII RMEERSGLIR ARLRGAAASK GQVITFLDAH CECTLGWLEP LLARIKEDRK TVVCPIIDVI SDDTFEYMAG SDMTYGGFNW KLNFRWYPVP QREMDRRKGD RTLPVRTPTM AGGLFSIDRN YFEEIGTYDA GMDIWGGENL EMSFRIWQCG GSLEIVTCSH VGHVFRKATP YTFPGGTGHV INKNNRRLAE VWMDEFKDFF YIISPGVVKV DYGDVSVRKT LRENLKCKPF SWYLENIYPD SQIPRRYYSL GEIRNVETNQ CLDNMGRKEN EKVGIFNCHG MGGNQVFSYT ADKEIRTDDL CLDVSRLNGP VIMLKCHHMR GNQLWEYDAE RLTLRHVNSN QCLDEPSEED KMVPTMQDCS GSRSQQWLLR NMTLGT **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 by multi-step, protein-specific process to ensure correct folding and modification.
- 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 will ensure that you receive a correctly folded 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 in several dilutions and is measured against its specific reference buffer.
- We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.

Purification:

Two step purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®):

1. In a first purification step, the protein is purified from the cleared cell lysate using StrepTag capture material. Eluate fractions are analyzed by SDS-PAGE.

Product Details

	2. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatography. Eluate fractions are analyzed by SDS-PAGE and Western blot.
Purity:	>80 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Endotoxin Level:	Low Endotoxin less than 1 EU/mg (< 0.1 ng/mg)
Grade:	Crystallography grade

Target Details

Target:	GALNT13
Alternative Name:	GALNT13 (GALNT13 Products)
Background:	Polypeptide N-acetylgalactosaminyltransferase 13 (EC 2.4.1.41) (Polypeptide GalNAc transferase 13) (GalNAc-T13) (pp-GaNTase 13) (Protein-UDP acetylgalactosaminyltransferase 13) (UDP-GalNAc:polypeptide N-acetylgalactosaminyltransferase 13),FUNCTION: Catalyzes the initial reaction in O-linked oligosaccharide biosynthesis, the transfer of an N-acetyl-D-galactosamine (GalNAc) residue from UDP-GalNAc to a serine or threonine residue on the protein receptor (PubMed:12407114, PubMed:22186971). Generates GalNAc-O-Ser/Thr structure also known as Tn antigen, which itself is immunogenic but also serves as a precursor for the synthesis of different mucin-type O-glycan core structures (PubMed:12407114). Contributes to the synthesis of O-linked glycans on mucins and proteoglycans of the central nervous system. May promote neurogenesis through glycosylation and stabilization of PDPN (PubMed:12407114, PubMed:22186971) (By similarity). {ECO:0000250|UniProtKB:Q8CF93, ECO:0000269|PubMed:12407114, ECO:0000269|PubMed:22186971}., FUNCTION: [Isoform 1]: Can glycosylate both unmodified peptides and glycopeptides that already contain an O-linked GalNAc sugar. Transfers GalNAc to Thr-/Ser-rich tandem repeats GTTPSPVPTTSTTSAP of MUC5AC, specifically on Thr-3 of non-glycosylated MUC5AC peptide, on Thr-12 and Thr-13 of preglycosylated MUC5AC at Thr-3 (MUC5AC-3), on Thr-3 of preglycosylated MUC5AC at Thr-13 (MUC5AC-13) and on Thr-12 of preglycosylated MUC5AC at Thr-3 and Thr-13 (MUC5AC-3,13). Transfers GalNAc to three consecutive serine/threonine residues on SDC3 forming a triplet-Tn epitope expressed in Purkinje cells of the developing brain. {ECO:0000269|PubMed:12407114, ECO:0000269|PubMed:22186971}., FUNCTION: [Isoform 3]: Can glycosylate both unmodified peptides and glycopeptides that already contain an O-linked GalNAc sugar. Transfers GalNAc to Thr-/Ser-rich tandem repeats GTTPSPVPTTSTTSAP of MUC5AC, specifically on Thr-3 of non-glycosylated MUC5AC peptide, on Thr-12 and Thr-13 of preglycosylated MUC5AC at Thr-3 (MUC5AC-3), on Thr-3 of preglycosylated MUC5AC at Thr-13 (MUC5AC-13) and on Thr-12 of

Target Details

	preglycosylated MUC5AC at Thr-3 and Thr-13 (MUC5AC-3,13). {ECO:0000269|PubMed:22186971}.
Molecular Weight:	64.1 kDa
UniProt:	Q8IUC8

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. 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. If you have a special request, please contact us.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)

Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process