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Datasheet for ABIN3116637 CHST4 Protein (AA 1-386) (Strep Tag)





Overview

Quantity:	1 mg
Target:	CHST4
Protein Characteristics:	AA 1-386
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This CHST4 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence:	MLLPKKMKLL LFLVSQMAIL ALFFHMYSHN ISSLSMKAQP ERMHVLVLSS WRSGSSFVGQ
	LFGQHPDVFY LMEPAWHVWM TFKQSTAWML HMAVRDLIRA VFLCDMSVFD AYMEPGPRRQ
	SSLFQWENSR ALCSAPACDI IPQDEIIPRA HCRLLCSQQP FEVVEKACRS YSHVVLKEVR
	FFNLQSLYPL LKDPSLNLHI VHLVRDPRAV FRSRERTKGD LMIDSRIVMG QHEQKLKKED
	QPYYVMQVIC QSQLEIYKTI QSLPKALQER YLLVRYEDLA RAPVAQTSRM YEFVGLEFLP
	HLQTWVHNIT RGKGMGDHAF HTNARDALNV SQAWRWSLPY EKVSRLQKAC GDAMNLLGYR
	HVRSEQEQRN LLLDLLSTWT VPEQIH
	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:

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- · 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 posttranslational 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.
- 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.

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Product Details	
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:	CHST4
Alternative Name:	CHST4 (CHST4 Products)
Background:	Carbohydrate sulfotransferase 4 (EC 2.8.2) (Galactose/N-acetylglucosamine/N-
	acetylglucosamine 6-0-sulfotransferase 3) (GST-3) (High endothelial cells N-acetylglucosamine
	6-0-sulfotransferase) (HEC-GlcNAc6ST) (L-selectin ligand sulfotransferase) (LSST) (N-
	acetylglucosamine 6-0-sulfotransferase 2) (GlcNAc6ST-2) (Gn6st-2),FUNCTION:
	Sulfotransferase involved in SELL/L-selectin ligand biosynthesis pathway. Catalyzes the
	transfer of the sulfate group from 3'-phospho-5'-adenylyl sulfate (PAPS) onto the hydroxyl
	group at C-6 position of the non-reducing N-acetylglucosamine (GlcNAc) residue within O-linked
	mucin-type glycans. Contributes to generate sialyl 6-sulfo Lewis X determinant (also known as
	MECA-79 epitope) for SELL recognition, a prerequisite for continuous lymphocyte homing into
	peripheral lymph nodes and antigen immune surveillance (PubMed:11439191,
	PubMed:12107080, PubMed:10330415, PubMed:11726653). Transfers the sulfate group
	primarily on core 2 GlcNAcbeta1-6(Galbeta1-3)GalNAcalphaSer/Thr and extended core 1
	GlcNAcbeta1-3Galbeta1-3GalNAcalphaSer/Thr based O-linked glycans on CD34 and GLYCAM1
	peripheral node addressins (PNAds) expressed on the lumenal side of high endothelial venules
	(HEVs) (PubMed:11439191). The recognition of PNAds by SELL initiates a multistep process
	comprising tethering and rolling of blood lymphocytes on HEVs against the blood flow, followed
	by chemokine signaling, integrin-mediated lymphocyte adhesion onto endothelial cells and
	lymphocyte transendothelial migration. Modulates rolling velocity and differential T and B
	lymphocyte recruitment into peripheral lymph nodes, with a major role in B lymphocyte homing.
	Might be redundant in sulfation of MADCAM1 and lymphocyte trafficking to mesenteric lymph
	nodes (By similarity). Can also sulfonate core 3 GlcNAcbeta1-3GalNAc-R based glycans as well
	as GlcNAcbeta1-3Galbeta1-Glc, GlcNAcbeta1-6ManOMe and GlcNAcbeta1-2Man
	oligosaccharides, which might be ectopically expressed during tumorigenesis
	(PubMed:12107080, PubMed:11439191, PubMed:11726653). {ECO:0000250 UniProtKB:Q9R111,
	ECO:0000269 PubMed:10330415, ECO:0000269 PubMed:11439191,
	EC0:0000269 PubMed:11726653, EC0:0000269 PubMed:12107080}.

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Target Details	
Molecular Weight:	45.1 kDa
UniProt:	Q8NCG5
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 °CStorage Comment:Store at -80°C.Expiry Date:Unlimited (if stored properly)



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

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