

Datasheet for ABIN3118446

Solute Carrier Family 17 (Acidic Sugar Transporter), Member 5 (SLC17A5) (AA 1-495) protein (Strep Tag)[Go to Product page](#)

Overview

Quantity:	1 mg
Target:	Solute Carrier Family 17 (Acidic Sugar Transporter), Member 5 (SLC17A5)
Protein Characteristics:	AA 1-495
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	Strep Tag
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Sequence: MRSPVRDLAR NDGEESTDRT PLLPGAPRAE AAPVCCSARY NLAILAFFGF FIVYALRVNL
SVALVDMVDS NTTLEDNRTS KACPEHSAPI KVHHNQTGKK YQWDAETQGW ILGSFFYGYI
ITQIPGGYVA SKIGGKMLLG FGILGTAVLT LFTPIAADLG VGPLIVLRAL EGLGEGVTFP
AMHAMWSSWA PPLERSKLLS ISYAGAQLGT VISLPLSGII CYMMNWTYVF YFFGTIGIFW
FLLWIWLVS DTPQKHKRISH YEKEYILSSL RNQLSSQKSV PWVPILKSLP LWAIVVAHFS
YNWTFYTLT LLPTYMKEIL RFNVQENGFL SSLPYLGSWL CMILSGQAAD NLRAKWNFST
LCVRRIFSLI GMIGPAVFLV AAGFIGDYS LAVAFLTIST TLGGFCSSGF SINHLDIAPS YAGILLGITN
TFATIPGMVG PVIKSLTPD NTVGEWQTVF YIAAAINVFG AIFFTLFAKG EVQNWALNDH HGHRH

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 Exspasy'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.
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.

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)

Target Details

Target: Solute Carrier Family 17 (Acidic Sugar Transporter), Member 5 (SLC17A5)

Alternative Name: SLC17A5 ([SLC17A5 Products](#))

Background: Sialin (H+)/nitrate cotransporter) (H+)/sialic acid cotransporter) (AST) (Membrane glycoprotein HP59) (Solute carrier family 17 member 5) (Vesicular excitatory amino acid transporter) (VEAT),FUNCTION: Multifunctional anion transporter that operates via two distinct transport mechanisms, namely proton-coupled anion cotransport and membrane potential-dependent anion transport (PubMed:15510212, PubMed:21781115, PubMed:22778404, PubMed:23889254). Electroneutral proton-coupled acidic monosaccharide symporter, with a sugar to proton stoichiometry of 1:1. Exports glucuronic acid and free sialic acid derived from sialoglycoconjugate degradation out of lysosomes, driven by outwardly directed lysosomal pH gradient. May regulate lysosome function and metabolism of sialylated conjugates that impact oligodendrocyte lineage differentiation and myelinogenesis in the central nervous system (PubMed:15510212, PubMed:21781115, PubMed:22778404, PubMed:23889254) (By similarity). Electrogenic proton-coupled nitrate symporter that transports nitrate ions across the basolateral membrane of salivary gland acinar cells, with nitrate to proton stoichiometry of 2:1. May contribute to nitrate clearance from serum by salivary glands, where it is further concentrated and secreted in the saliva (PubMed:22778404). Uses membrane potential to drive the uptake of acidic amino acids and peptides into synaptic vesicles. Responsible for synaptic vesicular storage of L-aspartate and L-glutamate in pinealocytes as well as vesicular uptake of N-acetyl-L-aspartyl-L-glutamate neuropeptide, relevant to aspartic-associated glutamatergic neurotransmission and activation of metabotropic receptors that inhibit subsequent transmitter release (PubMed:21781115, PubMed:22778404, PubMed:23889254) (By similarity). {ECO:0000250|UniProtKB:Q5Q0U0, ECO:0000250|UniProtKB:Q8BN82, ECO:0000269|PubMed:15510212, ECO:0000269|PubMed:21781115, ECO:0000269|PubMed:22778404, ECO:0000269|PubMed:23889254}., FUNCTION: Receptor for CM101, a polysaccharide produced by group B Streptococcus with antipathoangiogenic properties. {ECO:0000250|UniProtKB:Q9MZD1}.

Molecular Weight: 54.6 kDa

UniProt: [Q9NRA2](#)

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.

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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)
