

Datasheet for ABIN3118446

Solute Carrier Family 17 (Acidic Sugar Transporter), Member 5 (SLC17A5) (AA 1-495) protein (Strep Tag)



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Overview

Quantity:	250 µg
Target:	Solute Carrier Family 17 (Acidic Sugar Transporter), Member 5 (SLC17A5)
Protein Characteristics:	AA 1-495
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	Strep Tag
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Brand:	AliCE®
Sequence:	<p>MRSPVRDLAR NDGEESTDRT PLLPGAPRAE AAPVCCSARY NLAILAFFGF FIVYALRVNL SVALVDMVDS NTTLEDNRTS KACPEHSAPI KVHHNQTGKK YQWDAETQGW ILGSFFYGYI ITQIPGGYVA SKIGGKMLLG FGILGTAVLT LFTPIAADLG VGPLIVLRAL EGLGEGVTFP AMHAMWSSWA PPLERSKLLS ISYAGAQLGT VISLPLSGII CYMNMWTVYVF YFFGTIGIFW FLLWIWLVSD TPQKHKRISH YEKEYILSSL RNQLSSQKSV PWVPILKSLP LWAIVVAHFS YNWTFYTLT LLPTYMKEIL RFNVQENGFL SSLPYLGSWL CMILSGQAAD NLRKWNFST LCVRRIFSLI GMIGPAVFLV AAGFIGCDYS LAVAFLTIST TLGGFCSSGF SINHLDIAPS YAGILLGITN TFATIPGMVG PVIAKSLTPD NTVGEWQTVF YIAAAINVFG AIFFTLFAKG EVQNWALNDH HGHRH</p> <p>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.</p>

Product Details

Characteristics:	<div>Key Benefits:</div> <ul style="list-style-type: none">• 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). <p>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.</p> <p>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.</p> <div>Expression System:</div> <ul style="list-style-type: none">• ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from <i>Nicotiana tabacum</i> 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! <div>Concentration:</div> <ul style="list-style-type: none">• 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:	Solute Carrier Family 17 (Acidic Sugar Transporter), Member 5 (SLC17A5)
Alternative Name:	SLC17A5 (SLC17A5 Products)
Background:	<p>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 aspartergic-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}.</p>
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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Application Details

Comment:	<p>ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from <i>Nicotiana tabacum</i> 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.</p> <p>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!</p>
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Restrictions:	For Research Use only
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Handling

Format:	Liquid
Buffer:	<p>The buffer composition is at the discretion of the manufacturer.</p> <p>Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol Might differ depending on protein.</p>
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months