Datasheet for ABIN3135314

SLC6A4 Protein (AA 1-630) (Strep Tag)

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Overview

Quantity:	1 mg
Target:	SLC6A4
Protein Characteristics:	AA 1-630
Origin:	Mouse
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This SLC6A4 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

Product Details

Sequence:	METTPLNSQK VLSECKDKED CQENGVLQKG VPTPADKAGP GQISNGYSAV PSTSAGDEAP HSTPAATTTL VAEIHQGERE TWGKKMDFLL SVIGYAVDLG NIWRFPYICY QNGGGAFLLP YTIMAIFGGI PLFYMELALG QYHRNGCISI WKKICPIFKG IGYAICIIAF YIASYYNTII AWALYYLISS FTDQLPWTSC KNSWNTGNCT NYFAQDNITW TLHSTSPAEE FYLRHVLQIH QSKGLQDLGT ISWQLALCIM LIFTIIYFSI WKGVKTSGKV VWVTATFPYI VLSVLLVRGA TLPGAWRGVV FYLKPNWQKL LETGVWVDAA AQIFFSLGPG FGVLLAFASY NKFNNNCYQD ALVTSVVNCM TSFVSGFVIF TVLGYMAEMR NEDVSEVAKD AGPSLLFITY AEAIANMPAS TFFAIIFFLM LITLGLDSTF AGLEGVITAV LDEFPHIWAK RREWFVLIVV ITCILGSLLT LTSGGAYVVT LLEEYATGPA VLTVALIEAV VVSWFYGITQ FCSDVKEMLG FSPGWFWRIC WVAISPLFLL FIICSFLMSP PQLRLFQYNY PHWSIILGYC IGTSSVICIP IYIIYRLIST PGTLKERIIK SITPETPTEI PCGDIRMNAV **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 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:	> 80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).

Target Details

Target:	SLC6A4
Alternative Name:	Slc6a4 (SLC6A4 Products)
Background:	Sodium-dependent serotonin transporter (SERT) (5HT transporter) (5HTT) (Solute carrier family 6 member 4),FUNCTION: Serotonin transporter that cotransports serotonin with one Na(+) ion in exchange for one K(+) ion and possibly one proton in an overall electroneutral transport cycle. Transports serotonin across the plasma membrane from the extracellular compartment to the cytosol thus limiting serotonin intercellular signaling (PubMed:9037532, PubMed:9547354) (By similarity). Essential for serotonin homeostasis in the central nervous system. In the developing somatosensory cortex, acts in glutamatergic neurons to control serotonin uptake and its trophic functions accounting for proper spatial organization of cortical neurons and elaboration of sensory circuits. In the mature cortex, acts primarily in brainstem raphe neurons to mediate serotonin uptake from the synaptic cleft back into the pre-synaptic terminal thus terminating serotonin signaling at the synapse (PubMed:25600870, PubMed:9547354). Modulates mucosal serotonin levels in the gastrointestinal tract through uptake and clearance of serotonin in enterocytes. Required for enteric neurogenesis and gastrointestinal reflexes (PubMed:27111230). Regulates blood serotonin levels by ensuring rapid high affinity uptake of serotonin from plasma to platelets, where it is further stored in dense granules via vesicular monoamine transporters and then released upon stimulation (PubMed:18317590). Mechanistically, the transport cycle starts with an outward-open conformation having Na1(+) and Cl(-) sites occupied. The binding of a second extracellular Na2(+) ion and serotonin substrate leads to structural changes to outward-occluded to inward-occluded to inward-open, where the Na2(+) ion and serotonin are released into the cytosol. Binding of intracellular K(+) ion induces conformational transitions to inward-occluded to outward-open and completes the cycle by releasing K(+) possibly together with a proton bound to Asp-98 into the extracellular compartment. Na1(+) and Cl(-) ions remain bound throughout the transport cycle (PubMed:9037532, PubMed:9547354) (By similarity). Additionally, displays serotonin-induced channel-like conductance for monovalent cations, mainly Na(+) ions. The channel activity is uncoupled from the transport cycle and may contribute to the membrane resting potential or excitability (By similarity). {ECO:0000250|UniProtKB:P31645, ECO:0000250|UniProtKB:P31652, ECO:0000269|PubMed:18317590, ECO:0000269|PubMed:25600870, ECO:0000269|PubMed:27111230, ECO:0000269|PubMed:9037532, ECO:0000269|PubMed:9547354}.
Molecular Weight:	70.0 kDa
UniProt:	Q60857

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. 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