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Datasheet for ABIN7545083

SLC17A7 Protein (AA 1-560) (His tag)

Overview

Quantity:	1 mg
Target:	SLC17A7
Protein Characteristics:	AA 1-560
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This SLC17A7 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Purpose:	Custom-made recombinat SLC17A7 Protein expressed in mammalien cells.
Sequence:	MEFRQEERFK LAGRALGKLH RLEKQRQEGA ETELSADGR PVTTQTRDPP VVDCTCFGLP RRYIIAMSG LGFCISFGIR CNLGVAIVSM VNNSTTHRGG HVVVQKAQFS WDPETVGLIH GSFFWGYIVT QIPGGFICQK FAANRVFGFA IVATSTLNML IPSAARVHYG CVIFVRILQG LVEGV TYPAC HGIWSKWAPP LERSRLATTA FCGSYAGAVV AMPLAGVLVQ YSGWSSVFYV YGSFGIFWYL FWLLVSYESP ALHPSISEEE RKYIEDAIGE SAKLMNPLTK FSTPWRRFFT SMPVYAIIVA NFCRSWTFYL LLISQPAYFE EVFGFEISKV GLVSALPHLV MTIIVPIGGQ IADFLRSRRI MSTTNVRKLM NCGGFGMEAT LLLVVGYSHS KGV AISFLVL AVGFSGFAIS GFNVNHL DIA PRYASILMGI SNGVGTLSGM VCP IIVGAMT KHK TREEWQY VFLIASLVHY GGVIFYGVFA SGEKQPWAEP EEMSEEKCGF VGHDQLAGSD DSEMEDEAEP PGAPPAPPPS YGATHSTFQP PRPPPPVRDY Sequence without tag. The proposed Purification-Tag is based on experiences with the expression system, a different complexity of the protein could make

Product Details

another tag necessary. In case you have a special request, please contact us.

Characteristics:

Key Benefits:

- Made to order protein - from design to production - by highly experienced protein experts.
- Protein expressed in mammalian cells and purified in one-step affinity chromatography
- The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins.
- 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.

If you are not interested in a full length protein, please contact us for individual protein fragments.

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.

Purity:

> 90 % as determined by Bis-Tris Page, Western Blot

Grade:

custom-made

Target Details

Target:

SLC17A7

Alternative Name:

SLC17A7 ([SLC17A7 Products](#))

Background:

Vesicular glutamate transporter 1 (VGLUT1) (Brain-specific Na⁽⁺⁾-dependent inorganic phosphate cotransporter) (Solute carrier family 17 member 7),FUNCTION: Multifunctional transporter that transports L-glutamate as well as multiple ions such as chloride, proton, potassium, sodium and phosphate (PubMed:10820226). At the synaptic vesicle membrane, mainly functions as a uniporter which transports preferentially L-glutamate but also phosphate from the cytoplasm into synaptic vesicles at presynaptic nerve terminals of excitatory neural cells (By similarity). The L-glutamate or phosphate uniporter activity is electrogenic and is driven by the proton electrochemical gradient, mainly by the electrical gradient established by the vacuolar H⁽⁺⁾-ATPase across the synaptic vesicle membrane (By similarity). In addition, functions as a chloride channel that allows a chloride permeation through the synaptic vesicle membrane that affects the proton electrochemical gradient and promotes synaptic vesicles acidification (By similarity). Moreover, may function as a K⁽⁺⁾/H⁽⁺⁾

Target Details

antiport allowing to maintain the electrical gradient and to decrease chemical gradient and therefore sustain vesicular glutamate uptake (By similarity). The vesicular K(+)/H(+) antiport activity is electroneutral (By similarity). At the plasma membrane, following exocytosis, functions as a symporter of Na(+) and phosphate from the extracellular space to the cytoplasm allowing synaptic phosphate homeostasis regulation (PubMed:10820226). The symporter activity is driven by an inside negative membrane potential and is electrogenic (By similarity). Is necessary for synaptic signaling of visual-evoked responses from photoreceptors (By similarity). {ECO:0000250|UniProtKB:Q3TXX4, ECO:0000250|UniProtKB:Q62634, ECO:0000269|PubMed:10820226}.

Molecular Weight: 61.6 kDa

UniProt: [Q9P2U7](#)

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.

Restrictions: For Research Use only

Handling

Format: Liquid

Buffer: The buffer composition is at the discretion of the manufacturer.

Handling Advice: Avoid repeated freeze-thaw cycles.

Storage: -80 °C

Storage Comment: Store at -80°C.

Expiry Date: 12 months