Datasheet for ABIN7545029

Solute Carrier Family 17 (Vesicular Glutamate Transporter), Member 6 (SLC17A6) (AA 1-582) protein (His tag)

Go to Product page

Overview

Quantity:	1 mg
Target:	Solute Carrier Family 17 (Vesicular Glutamate Transporter), Member 6 (SLC17A6)
Protein Characteristics:	AA 1-582
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	His tag

Product Details

Purpose:	Custom-made recombinant SLC17A6 Protein expressed in mammalian cells.
Sequence:	MESVKQRILA PGKEGLKNFA GKSLGQIYRV LEKKQDTGET IELTEDGKPL EVPERKAPLC DCTCFGLPRR YIIAIMSGLG FCISFGIRCN LGVAIVDMVN NSTIHRGGKV IKEKAKFNWD PETVGMIHGS FFWGYIITQI PGGYIASRLA ANRVFGAAIL LTSTLNMLIP SAARVHYGCV IFVRILQGLV EGVTYPACHG IWSKWAPPLE RSRLATTSFC GSYAGAVIAM PLAGILVQYT GWSSVFYVYG SFGMVWYMFW LLVSYESPAK HPTITDEERR YIEESIGESA NLLGAMEKFK TPWRKFFTSM PVYAIIVANF CRSWTFYLLL ISQPAYFEEV FGFEISKVGM LSAVPHLVMT IIVPIGGQIA DFLRSKQILS TTTVRKIMNC GGFGMEATLL LVVGYSHTRG VAISFLVLAV GFSGFAISGF NVNHLDIAPR YASILMGISN GVGTLSGMVC PIIVGAMTKN KSREEWQYVF LIAALVHYGG VIFYAIFASG EKQPWADPEE TSEEKCGFIH EDELDEETGD ITQNYINYGT TKSYGATTQA NGGWPSGWEK KEEFVQGEVQ DSHSYKDRVD YS **Sequence without tag. The proposed Purification-Tag is based on experiences with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special**

Product Details

	request, please contact us.
Specificity:	If you are looking for a specific domain and are interested in a partial protein or a different isoform, please contact us regarding an individual offer.
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, anti-tag ELISA, Western Blot and analytical SEC (HPLC)
Grade:	custom-made

Target Details

Target:	Solute Carrier Family 17 (Vesicular Glutamate Transporter), Member 6 (SLC17A6)
Alternative Name:	SLC17A6 (SLC17A6 Products)
Background:	Vesicular glutamate transporter 2 (VGluT2) (Differentiation-associated BNPI) (Differentiation-associated Na(+)-dependent inorganic phosphate cotransporter) (Solute carrier family 17 member 6),FUNCTION: Multifunctional transporter that transports L-glutamate as well as multiple ions such as chloride, proton, potassium, sodium and phosphate (PubMed:33440152, PubMed:11698620). 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 (PubMed:11698620). 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 (PubMed:11698620). In addition, functions as a

Target Details

	chloride channel that allows the chloride permeation through the synaptic vesicle membrane therefore affects the proton electrochemical gradient and promotes synaptic vesicles acidification (By similarity). Moreover, functions as a vesicular K(+)/H(+) antiport allowing to maintain the electrical gradient and to decrease chemical gradient and therefore sustain vesicular glutamate uptake (By similarity). The vesicular H(+)/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 (Probable) (PubMed:10820226). The symporter activity is driven by an inside negative membrane potential and is electrogenic (Probable). Also involved in the regulation of retinal hyaloid vessel regression during postnatal development (By similarity). May also play a role in the endocrine glutamatergic system of other tissues such as pineal gland and pancreas (By similarity). {ECO:0000250|UniProtKB:Q8BLE7, ECO:0000250|UniProtKB:Q9JI12, ECO:0000269|PubMed:10820226, ECO:0000269|PubMed:11698620, ECO:0000305|PubMed:33440152}.
Molecular Weight:	64.4 kDa
UniProt:	Q9P2U8

Application Details

Application Notes:	We expect the protein to work for functional studies. 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