

Datasheet for ABIN7545908
ChT Protein (AA 1-580) (His tag)



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Overview

Quantity:	1 mg
Target:	ChT
Protein Characteristics:	AA 1-580
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This ChT protein is labelled with His tag.

Product Details

Purpose:	Custom-made recombinant SLC5A7 Protein expressed in mammalian cells.
Sequence:	<p>MAFHVEGLIA IIVFYLLILL VGIWAAWRTK NSGSAEERSE AIIVGGRDIG LLVGGFTMTA TWVGGGYING TAEAVYVPGY GLAWAQAPIG YLSLILGGL FFAKPMRSKG YVTMLDPFQQ IYGKRMGGLL FIPALMGEMF WAAAFSALG ATISVIIDVD MHISVIISAL IATLYTLVGG LYSVAYTDVV QLFCIFVGLW ISVPFALSHP AVADIGFTAV HAKYQKPWLG TVDSSEVYSW LDSFLLMLG GIPWQAYFQR VLSSSSATYA QVLSFLAAGF CLVMAIPAIL IGAIGASTDW NQTAYGLPDP KTTEEADMIL PIVLQYLCPV YISFFGLGAV SAAVMSSADS SILSASSMFA RNIYQLSFRQ NASDKEIVWV MRITVFVFGA SATAMALLTK TVYGLWYLSS DLVYIVIFPQ LLCVLFVKGT NTYGAVAGYV SGLFLRITGG EPYLYLQPLI FYPGYPPDDN GIYNQKFPFK TLAMVTSFLT NICISYLAKY LFESGTLPPK LDVFDVAVAR HSEENMDKTI LVKNENIKLD ELALVKPRQS MTLSSFTFNK EAFLDVDSSP EGSGTEDNLQ 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</p>

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: ChT

Alternative Name: SLC5A7 ([ChT Products](#))

Background: High affinity choline transporter 1 (hCHT1) (Hemicholinium-3-sensitive choline transporter) (CHT) (Solute carrier family 5 member 7),FUNCTION: High-affinity Na(+)-coupled choline transmembrane symporter (PubMed:11027560, PubMed:11068039, PubMed:12969261, PubMed:17005849, PubMed:23141292, PubMed:23132865, PubMed:12237312, PubMed:27569547). Functions as an electrogenic, voltage-dependent transporter with variable charge/choline stoichiometry (PubMed:17005849). Choline uptake and choline-induced current is also Cl(-)-dependent where Cl(-) is likely a regulatory ion rather than cotransported ion (PubMed:11068039, PubMed:17005849, PubMed:12237312). Plays a critical role in acetylcholine (ACh) synthesis by taking up the substrate choline from the synaptic cleft into the presynaptic nerve terminals after neurotransmitter release (PubMed:27569547).

Target Details

SLC5A7/CHT1-mediated choline high-affinity transport in cholinergic neurons is the rate-limiting step for production of ACh, thereby facilitating communication by subsequent action potentials (PubMed:11027560). Localized predominantly in presynaptic terminal intracellular organelles, and translocated to the plasma membrane in active form in response to neuronal activity (PubMed:12969261, PubMed:15953352). {ECO:0000269|PubMed:11027560, ECO:0000269|PubMed:11068039, ECO:0000269|PubMed:12237312, ECO:0000269|PubMed:12969261, ECO:0000269|PubMed:15953352, ECO:0000269|PubMed:17005849, ECO:0000269|PubMed:23132865, ECO:0000269|PubMed:23141292, ECO:0000269|PubMed:27569547}.

Molecular Weight: 63.2 kDa

UniProt: [Q9GZV3](#)

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