

Datasheet for ABIN7561402  
**TPCN1 Protein (AA 1-817) (His tag)**



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## Overview

Quantity:	1 mg
Target:	TPCN1
Protein Characteristics:	AA 1-817
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This TPCN1 protein is labelled with His tag.

## Product Details

Purpose:	Custom-made recombinant Tpcn1 Protein expressed in mammalian cells.
Sequence:	<pre>MAVSLDDDDVP LILTLDEAES APLPPSNSLG QEQLPSKNGG SHSIHNSQVP SLVSGADSP SSPTGHNWEM NYQEAAIYLQ EGQNNDKFFT HPKDARALAA YLFVHNHFFY MMELLTALL LLLSLCESPA VPVLKLHTYV HATLELFALM VVFELCMKL RWLGFHTFVR HKRTMVKTSV LVVQFIEAIV VLVRQTSHVR VTRALRCIFL VDCRYCGGVR RNLRQIFQSL PPFMDILL LFFMIIFAIL GFYLFSTNPS DPYFSTLENS IVNLFVLLTT ANFPDVMMP YSRNPWSCVF FIVYLSIELY FIMNLLLAWV FDTFNDIEKH KFKSLLLHKR TAIQHAYGLL ASQRRPAGIS YRQFEGLMRF YKPRMSARER FLTFKALNQS NTPLLSLKDF YDIYEVAALQ WKAKRNRQHW FDELPRTAFL IFKGINILVN SKAFQYFMYL VVAVNGWIL VETFMLKGGN FTSKHVPWSY LVFLTIYGVE LFMKVAGLGP VEYLSSGWNL FDFSVTAFAP LGLLALTLNM EPFYFIVVLR PLQLLRLFKL KKRYRNVLDL MFELLPRMAS LGLTLLTFY SFAIVGMEFF NGRLTPNCCN TSTVADAYRF INHTVGNKTK VEEGYLNN FDNILNSFVT LFELTVVNNW YIIMEGVTSQ TSHWSRLYFM TFYIVTMVVM TIIVAFIEA FVFRMNYSRK SQDSEVDSGI VIEKEMSKEE LMAVLELYRE</pre>

## Product Details

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ERGTSSDVTR LLDTLSQMEK YQQNSMVFLG RRSRTKSDLS LKMYQEIIQE WYEEHAREQE  
QQKLRGSPVG PAAQQPPGSR QRSQTVT **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 request, please contact us.**

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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.

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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.

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Purity: > 90 % as determined by Bis-Tris PAGE, anti-tag ELISA, Western Blot and analytical SEC (HPLC)

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Grade: custom-made

## Target Details

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Target: TPCN1

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Alternative Name: Tpcn1 ([TPCN1 Products](#))

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Background: Two pore calcium channel protein 1 (Voltage-dependent calcium channel protein TPC1),FUNCTION: Intracellular channel initially characterized as a non-selective Ca(2+)-permeable channel activated by NAADP (nicotinic acid adenine dinucleotide phosphate), it is also a voltage-gated highly-selective Na(+) channel activated directly by PI(3,5)P2 (phosphatidylinositol 3,5-bisphosphate) that senses pH changes and confers electrical excitability to organelles (PubMed:24776928, PubMed:23394946, PubMed:23063126).

## Target Details

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Localizes to the early and recycling endosomes membranes where it plays a role in the uptake and processing of proteins and regulates organellar membrane excitability, membrane trafficking and pH homeostasis (PubMed:28855648). Ion selectivity is not fixed but rather agonist-dependent and under defined ionic conditions, can be readily activated by both NAADP and PI(3,5)P2 (By similarity). Required for mTOR-dependent nutrient sensing (PubMed:23394946). {ECO:0000250|UniProtKB:Q8NHX9, ECO:0000269|PubMed:23063126, ECO:0000269|PubMed:23394946, ECO:0000269|PubMed:24776928, ECO:0000269|PubMed:28855648}.

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Molecular Weight: 94.5 kDa

UniProt: [Q9EQJ0](#)

## Application Details

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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

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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