

Datasheet for ABIN7563402  
**SLC25A5 Protein (AA 1-298) (His tag)**



[Go to Product page](#)

## Overview

Quantity:	1 mg
Target:	SLC25A5
Protein Characteristics:	AA 1-298
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This SLC25A5 protein is labelled with His tag.

## Product Details

Purpose:	Custom-made recombinant Slc25a5 Protein expressed in mammalian cells.
Sequence:	MTDAAVSFAK DFLAGGVAAA ISKTAVAPIE RVKLLLQVQH ASKQITADKQ YKGIIDCVVR IPKEQGVLSF WRGNLANVIR YFPTQALNFA FKDKYKQIFL GGVDKRTQFW RYFAGNLASG GAAGATSLCF VYPLDFARTR LAADVKGAGA EREFKGLGDC LVKIYKSDGI KGLYQGFNVS VQGIYYRAA YFGIYDTAKG MLPDPKNTHI FISWMIAQSV TAVAGLTSYP FDTVRRRMMM QSGRKGTDIM YTGTLDCWRK IARDEGSKAF FKGAWSNVLR GMGGAFVLVL YDEIKKYT <b>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.</b>
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:

## Product Details

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- 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)
Grade:	custom-made

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## Target Details

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Target:	SLC25A5
Alternative Name:	Slc25a5 ( <a href="#">SLC25A5 Products</a> )
Background:	ADP/ATP translocase 2 (ADP,ATP carrier protein 2) (Adenine nucleotide translocator 2) (ANT 2) (Solute carrier family 25 member 5) [Cleaved into: ADP/ATP translocase 2, N-terminally processed],FUNCTION: ADP:ATP antiporter that mediates import of ADP into the mitochondrial matrix for ATP synthesis, and export of ATP out to fuel the cell (PubMed:31341297). Cycles between the cytoplasmic-open state (c-state) and the matrix-open state (m-state): operates by the alternating access mechanism with a single substrate-binding site intermittently exposed to either the cytosolic (c-state) or matrix (m-state) side of the inner mitochondrial membrane (By similarity). In addition to its ADP:ATP antiporter activity, also involved in mitochondrial uncoupling and mitochondrial permeability transition pore (mPTP) activity (PubMed:31489369, PubMed:31341297). Plays a role in mitochondrial uncoupling by acting as a proton transporter: proton transport uncouples the proton flows via the electron transport chain and ATP synthase to reduce the efficiency of ATP production and cause mitochondrial thermogenesis (PubMed:31341297). Proton transporter activity is inhibited by ADP:ATP antiporter activity, suggesting that SLC25A5/ANT2 acts as a master regulator of mitochondrial energy output by

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## Target Details

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maintaining a delicate balance between ATP production (ADP:ATP antiporter activity) and thermogenesis (proton transporter activity) (PubMed:31341297). Proton transporter activity requires free fatty acids as cofactor, but does not transport it (PubMed:31341297). Probably mediates mitochondrial uncoupling in tissues that do not express UCP1 (PubMed:31341297). Also plays a key role in mPTP opening, a non-specific pore that enables free passage of the mitochondrial membranes to solutes of up to 1.5 kDa, and which contributes to cell death (PubMed:31489369). It is however unclear if SLC25A5/ANT2 constitutes a pore-forming component of mPTP or regulates it (PubMed:31489369). Acts as a regulator of mitophagy independently of ADP:ATP antiporter activity: promotes mitophagy via interaction with TIMM44, leading to inhibit the presequence translocase TIMM23, thereby promoting stabilization of PINK1 (PubMed:31618756). As part of the mitotic spindle-associated MMXD complex it may play a role in chromosome segregation (By similarity). {ECO:0000250|UniProtKB:G2QNH0, ECO:0000250|UniProtKB:P05141, ECO:0000269|PubMed:31341297, ECO:0000269|PubMed:31489369, ECO:0000269|PubMed:31618756}.

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Molecular Weight: 32.9 kDa

UniProt: [P51881](#)

## 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