

Datasheet for ABIN7557342

SLC25A31 Protein (AA 1-320) (His tag)[Go to Product page](#)

Overview

Quantity:	1 mg
Target:	SLC25A31
Protein Characteristics:	AA 1-320
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This SLC25A31 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Purpose:	Custom-made recombinat Slc25a31 Protein expressed in mammalien cells.
Sequence:	MSNESSKKQS SKKALFDPVS FSKDLLAGGV AAVSKTAVA PIERVKLLLQ VQASSKQISP EARYKGMLDC LVRIPREQGF LSYWRGNLAN VIRYFPTQAL NFAFKDKYKE LFMSGVNKEK QFWRWFLANL ASGGAAGATS LCVVYPLDFA RTRLGVDIGK GPEQRQFTGL GDCIMKIAKS DGLIGLYQGF GSVVQGIIVY RASYFGAYDT VKGLLPKPKE TPFLVSFIIA QIVTTCGIL SYPFDTVRRR MMMQSGESDR QYKGTIDCFL KIYRHEGVPA FFRGAFSNIL RGTGGALVLV LYDKIKEFLN IDVGGSSSGD 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.
Characteristics:	Key Benefits: <ul style="list-style-type: none">• Made to order protein - from design to production - by highly experienced protein experts.

Product Details

- 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
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Grade:	custom-made
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Target Details

Target:	SLC25A31
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Alternative Name:	Slc25a31 (SLC25A31 Products)
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Background:	<p>ADP/ATP translocase 4 (ADP,ATP carrier protein 4) (Adenine nucleotide translocator 4) (ANT 4) (Solute carrier family 25 member 31) (Sperm flagellar energy carrier protein),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 (By similarity). 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). Specifically required during spermatogenesis, probably to mediate ADP:ATP exchange in spermatocytes (PubMed:17137571, PubMed:17681941, PubMed:19556438). Large ATP supplies from mitochondria may be critical for normal progression of spermatogenesis during early stages of meiotic prophase I, including DNA double-strand break repair and chromosomal synapsis (PubMed:19556438). In addition to its ADP:ATP antiporter activity, also involved in mitochondrial uncoupling and mitochondrial permeability transition pore (mPTP) activity (PubMed:31489369). 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</p>
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Target Details

to reduce the efficiency of ATP production and cause mitochondrial thermogenesis (By similarity). Proton transporter activity is inhibited by ADP:ATP antiporter activity, suggesting that SLC25A31/ANT4 acts as a master regulator of mitochondrial energy output by maintaining a delicate balance between ATP production (ADP:ATP antiporter activity) and thermogenesis (proton transporter activity) (By similarity). Proton transporter activity requires free fatty acids as cofactor, but does not transport it (By similarity). Among nucleotides, may also exchange ADP for dATP and dADP (By similarity). 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 SLC25A31/ANT4 constitutes a pore-forming component of mPTP or regulates it (PubMed:31489369). {ECO:0000250|UniProtKB:G2QNH0, ECO:0000250|UniProtKB:P48962, ECO:0000250|UniProtKB:Q9H0C2, ECO:0000269|PubMed:17137571, ECO:0000269|PubMed:17681941, ECO:0000269|PubMed:19556438, ECO:0000269|PubMed:31489369}.

Molecular Weight: 35.3 kDa

UniProt: [Q3V132](#)

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