

SLC25A4 antibody - N-terminal region
Rabbit Polyclonal Antibody
Catalog # AI12323**Specification**

SLC25A4 antibody - N-terminal region - Product Information

Application	IHC, WB
Primary Accession	Q05962
Other Accession	NM_001151 , NP_001142
Reactivity	Human, Mouse, Rat, Rabbit, Zebrafish, Pig, Goat, Sheep, Horse, Bovine, Guinea Pig, Dog
Predicted	Human, Mouse, Rat, Zebrafish, Chicken, Goat, Sheep, Bovine, Dog
Host	Rabbit
Clonality	Polyclonal
Calculated MW	33kDa KDa

SLC25A4 antibody - N-terminal region - Additional Information**Gene ID** 85333**Alias Symbol** **ANT, ANT1, PEO2, PEO3, T1, AAC1**
Other Names

ADP/ATP translocase 1, ADP, ATP carrier protein 1, Adenine nucleotide translocator 1, ANT 1, Solute carrier family 25 member 4, Slc25a4, Ant1

Format

Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.

Reconstitution & Storage

Add 50 ul of distilled water. Final anti-SLC25A4 antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at 20°C. Avoid repeat freeze-thaw cycles.

Precautions

SLC25A4 antibody - N-terminal region is for research use only and not for use in diagnostic or therapeutic procedures.

SLC25A4 antibody - N-terminal region - Protein Information**Name** Slc25a4 {ECO:0000312|RGD:620352}**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). In addition to its ADP:ATP

antiporter activity, also involved in mitochondrial uncoupling and mitochondrial permeability transition pore (mPTP) activity (By similarity). 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. Proton transporter activity is inhibited by ADP:ATP antiporter activity, suggesting that SLC25A4/ANT1 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). Proton transporter activity requires free fatty acids as cofactor, but does not transport it (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 (By similarity). It is however unclear if SLC25A4/ANT1 constitutes a pore-forming component of mPTP or regulates it (By similarity). 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 (By similarity).

Cellular Location

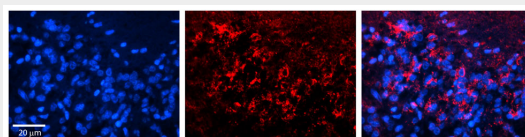
Mitochondrion inner membrane {ECO:0000250|UniProtKB:P12235}; Multi-pass membrane protein. Membrane {ECO:0000250|UniProtKB:P12235}; Multi-pass membrane protein. Note=The complex formed with ARL2BP, ARL2 and SLC25A4/ANT1 is expressed in mitochondria (By similarity). May localize to non-mitochondrial membranes (By similarity) {ECO:0000250|UniProtKB:P12235, ECO:0000250|UniProtKB:P48962}

SLC25A4 antibody - N-terminal region - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

SLC25A4 antibody - N-terminal region - Images



Rabbit Anti-SLC25A4 Antibody

Formalin Fixed Paraffin Embedded Tissue: Human Pineal Tissue Observed Staining: Cytoplasmic in cell bodies of pinealocytes and their processes

Primary Antibody

Concentration: 1:100 Other Working Concentrations: 1/600

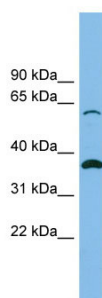
Secondary Antibody: Donkey anti-Rabbit-Cy3

Secondary Antibody

Concentration: 1:200

Magnification: 20X

Exposure Time: 0.5 - 2.0 sec



WB Suggested Anti-SLC25A4 Antibody Titration: 0.2-1 μ g/ml

ELISA Titer: 1:312500

Positive Control: RPMI 8226 cell lysate

SLC25A4 is supported by BioGPS gene expression data to be expressed in RPMI 8226