10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

SLC25A4 antibody - N-terminal region

Rabbit Polyclonal Antibody
Catalog # AI12323

Product Information

Application	WB, IHC
Primary Accession	Q05962
Other Accession	NM_001151, NP_001142
Reactivity	Human, Mouse, Rat, Rabbit, Zebrafish, Pig, Goat, Dog, Guinea Pig, Horse, Bovine, Sheep
Predicted	Human, Mouse, Rat, Zebrafish, Chicken, Goat, Dog, Bovine, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	32989

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.

Protein Information

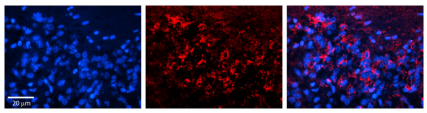
Name	Slc25a4 {ECO:0000312|RGD:620352}
Function	ADP:ATP antiporter that mediates import of ADP into the mitochondrial matrix for ATP synthesis, and export of ATP out to fuel the cell (By similarity). Cycles between the cytoplasmic-open state (c- state) and the matrix-open state (m-state): operates by 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). Substrate exchange across the membrane occurs consecutively with one substrate being transported first, then dissociating from the substrate binding site before the second substrate binds for transport in the opposite direction

(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).

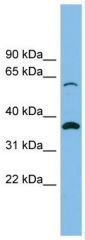
Cellular Location

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}

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 µg/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

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.