

**ANT-1 Polyclonal Antibody**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP58511****Specification****ANT-1 Polyclonal Antibody - Product Information**

Application	IHC-P, IHC-F, IF, E
Primary Accession	<a href="#">P12235</a>
Reactivity	Rat, Pig, Dog, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	33064

**ANT-1 Polyclonal Antibody - Additional Information****Gene ID** 291**Other Names**

ADP/ATP translocase 1, ADP, ATP carrier protein 1, SLC25A4 {ECO:0000303|PubMed:25732997, ECO:0000312|HGNC:HGNC:10990}

**Dilution**

IHC-P~N/A  
IHC-F~N/A  
IF~1:50~200  
E~N/A

**Format**

0.01M TBS(pH7.4), 0.09% (W/V) sodium azide and 50% Glyce

**Storage**

Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

**ANT-1 Polyclonal Antibody - Protein Information****Name** SLC25A4 {ECO:0000303|PubMed:25732997, ECO:0000312|HGNC:HGNC:10990}**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:<a href="http://www.uniprot.org/citations/21586654" target="\_blank">21586654</a>, PubMed:<a href="http://www.uniprot.org/citations/27693233" target="\_blank">27693233</a>). 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:<a href="http://www.uniprot.org/citations/31883789" target="\_blank">31883789</a>). 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 (By similarity). 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) (By similarity). 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 (PubMed:<a href="http://www.uniprot.org/citations/31883789" target="\_blank">31883789</a>). 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; Multi-pass membrane protein. Membrane; 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 (PubMed:27641616) {ECO:0000250|UniProtKB:P48962, ECO:0000269|PubMed:27641616}

#### Tissue Location

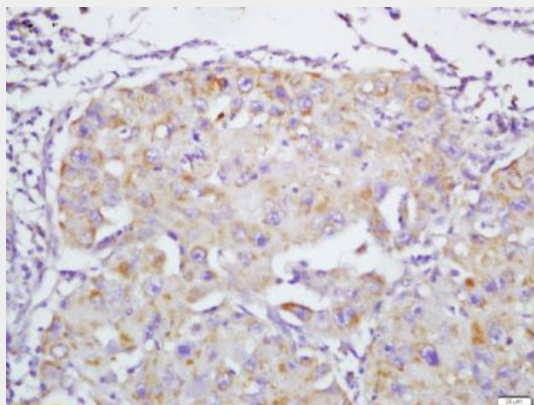
Expressed in erythrocytes (at protein level).

### ANT-1 Polyclonal Antibody - 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](#)

### ANT-1 Polyclonal Antibody - Images



Tissue/cell: human lung carcinoma; 4% Paraformaldehyde-fixed and paraffin-embedded;  
Antigen retrieval: citrate buffer ( 0.01M, pH 6.0 ), Boiling bathing for 15min; Block endogenous

peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;

Incubation: Anti-ANT-1 Polyclonal Antibody, Unconjugated(bs-6794R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining