

SLC25A6 / ANT3 Antibody (aa121-170)
Rabbit Polyclonal Antibody
Catalog # ALS15339**Specification**

SLC25A6 / ANT3 Antibody (aa121-170) - Product Information

Application	WB, IHC
Primary Accession	P12236
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	33kDa KDa

SLC25A6 / ANT3 Antibody (aa121-170) - Additional Information**Gene ID** 293**Other Names**

ADP/ATP translocase 3, ADP, ATP carrier protein 3, ADP, ATP carrier protein, isoform T2, ANT 2, Adenine nucleotide translocator 3, ANT 3, Solute carrier family 25 member 6, ADP/ATP translocase 3, N-terminally processed, SLC25A6, ANT3

Target/Specificity

SLC25A6 Antibody detects endogenous levels of total SLC25A6 protein.

Reconstitution & Storage

Short term 4°C, long term aliquot and store at -20°C, avoid freeze thaw cycles.

Precautions

SLC25A6 / ANT3 Antibody (aa121-170) is for research use only and not for use in diagnostic or therapeutic procedures.

SLC25A6 / ANT3 Antibody (aa121-170) - Protein Information**Name** SLC25A6 ([HGNC:10992](#))**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 (PubMed:15033708). 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

SLC25A6/ANT3 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:15033708). It is however unclear if SLC25A6/ANT3 constitutes a pore-forming component of mPTP or regulates it (By similarity).

Cellular Location

Mitochondrion inner membrane {ECO:0000250|UniProtKB:P02722}; Multi-pass membrane protein. Membrane; Multi-pass membrane protein. Note=The complex formed with ARL2BP, ARL2 and SLC25A6/ANT3 is expressed in mitochondria (By similarity). May localize to non-mitochondrial membranes (By similarity) {ECO:0000250|UniProtKB:P12235}

Tissue Location

Expressed in erythrocytes (at protein level).

Volume

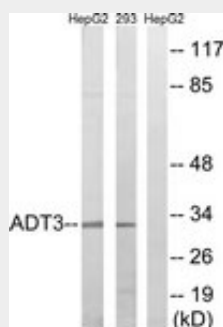
50 µl

SLC25A6 / ANT3 Antibody (aa121-170) - Protocols

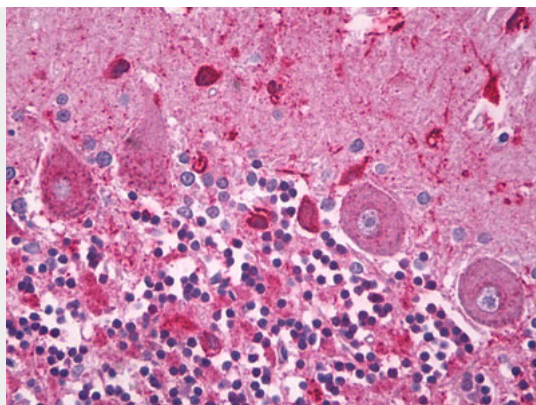
Provided below are standard protocols that you may find useful for product applications.

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

SLC25A6 / ANT3 Antibody (aa121-170) - Images



Western blot of extracts from HepG2/293 cells, using SLC25A6 Antibody.



Anti-SLC25A6 / ANT3 antibody IHC of human brain, cerebellum.

SLC25A6 / ANT3 Antibody (aa121-170) - Background

Catalyzes the exchange of cytoplasmic ADP with mitochondrial ATP across the mitochondrial inner membrane. May participate in the formation of the permeability transition pore complex (PTPC) responsible for the release of mitochondrial products that triggers apoptosis.

SLC25A6 / ANT3 Antibody (aa121-170) - References

- Cozens A.L.,et al.J. Mol. Biol. 206:261-280(1989).
- Zhou J.,et al.Submitted (JUL-2000) to the EMBL/GenBank/DDBJ databases.
- Bienvenut W.V.,et al.Submitted (JUL-2004) to UniProtKB.
- Houldsworth J.,et al.Proc. Natl. Acad. Sci. U.S.A. 85:377-381(1988).
- Verrier F.,et al.Ann. N. Y. Acad. Sci. 1010:126-142(2003).