

SLC25A6 Antibody (Center)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP12188c**Specification**

SLC25A6 Antibody (Center) - Product Information

Application	FC, IF, IHC-P, WB,E
Primary Accession	P12236
Other Accession	NP_001627.2
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	32866
Antigen Region	128-155

SLC25A6 Antibody (Center) - 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

This SLC25A6 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 128-155 amino acids from the Central region of human SLC25A6.

Dilution

FC~~1:10~50

IF~~1:10~50

IHC-P~~1:10~50

WB~~1:1000

E~~Use at an assay dependent concentration.

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

SLC25A6 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

SLC25A6 Antibody (Center) - 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}

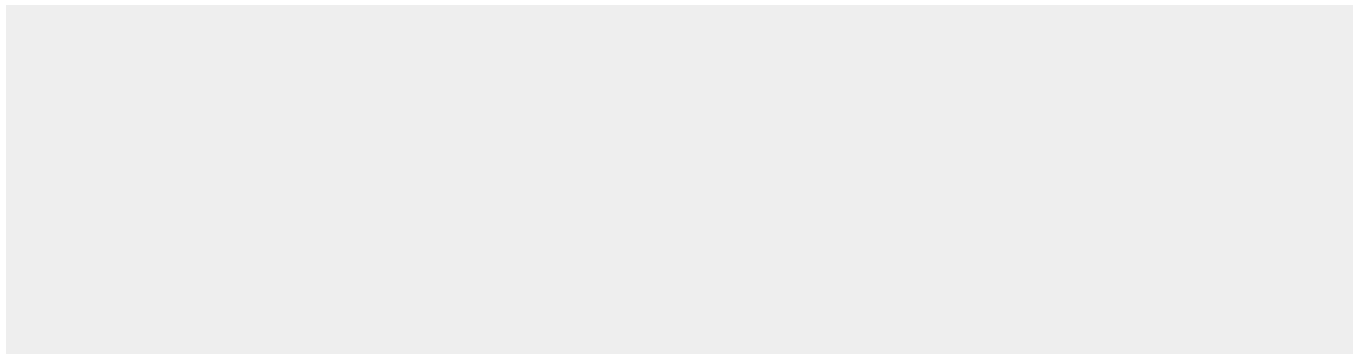
Tissue Location

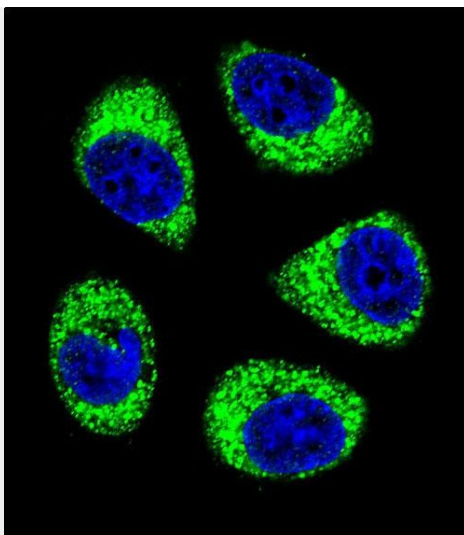
Expressed in erythrocytes (at protein level).

SLC25A6 Antibody (Center) - Protocols

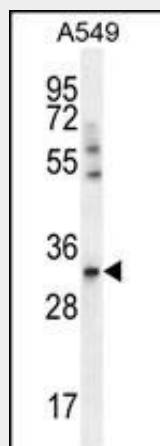
Provided below are standard protocols that you may find useful for product applications.

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

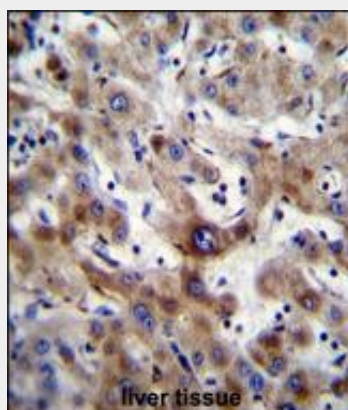
SLC25A6 Antibody (Center) - Images



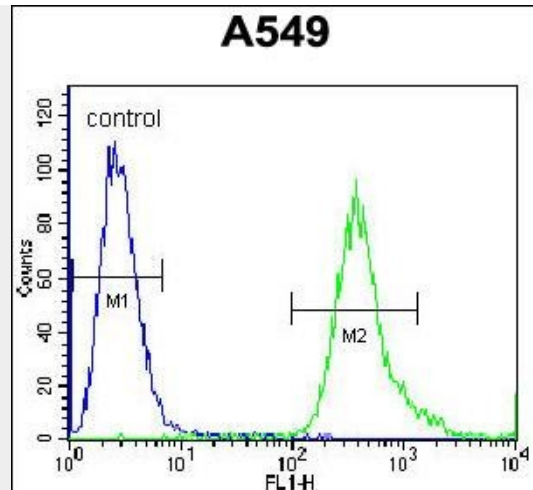
Confocal immunofluorescent analysis of SLC25A6 Antibody (Center)(Cat#AP12188c) with A549 cell followed by Alexa Fluor 488-conjugated goat anti-rabbit IgG (green). DAPI was used to stain the cell nuclear (blue).



SLC25A6 Antibody (Center) (Cat. #AP12188c) western blot analysis in A549 cell line lysates (35ug/lane). This demonstrates the SLC25A6 antibody detected the SLC25A6 protein (arrow).



SLC25A6 Antibody (Center) (Cat. #AP12188c) immunohistochemistry analysis in formalin fixed and paraffin embedded human liver tissue followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of SLC25A6 Antibody (Center) for immunohistochemistry. Clinical relevance has not been evaluated.



SLC25A6 Antibody (Center) (Cat. #AP12188c) flow cytometric analysis of A549 cells (right histogram) compared to a negative control cell (left histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

SLC25A6 Antibody (Center) - Background

This gene is a member of the mitochondrial carrier subfamily of solute carrier protein genes. The product of this gene functions as a gated pore that translocates ADP from the mitochondrial matrix into the cytoplasm. The protein is implicated in the function of the permeability transition pore complex (PTPC), which regulates the release of mitochondrial products that induce apoptosis. The human genome contains several non-transcribed pseudogenes of this gene.

SLC25A6 Antibody (Center) - References

Danishuddin, M., et al. J Mol Model 16(3):535-541(2010)
Hu, Z., et al. FEBS Lett. 583(2):383-388(2009)
Yang, Z., et al. Mol. Biol. Cell 18(11):4681-4689(2007)
Tu, L.C., et al. Mol. Cell Proteomics 6(4):575-588(2007)
Jang, J.Y., et al. Cell. Immunol. 241(1):14-25(2006)

SLC25A6 Antibody (Center) - Citations

- [Mortalin depletion induces MEK/ERK-dependent and ANT/CypD-mediated death in vemurafenib-resistant B-Raf melanoma cells](#)
- [Mortalin/HSPA9 targeting selectively induces KRAS tumor cell death by perturbing mitochondrial membrane permeability](#)