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Anti-ANT3 Antibody
Rabbit polyclonal antibody to ANT3
Catalog # AP59965

Specification

Anti-ANT3 Antibody - Product Information

Application	**WB**
Primary Accession	P12236
Reactivity	**Human, Mouse, Rat, Monkey**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**32866**

Anti-ANT3 Antibody - Additional Information

Gene ID 293

Other Names
ANT3; 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

Target/Specificity
Recognizes endogenous levels of ANT3 protein.

Dilution
WB~~WB (1/500 - 1/1000), IH (1/100 - 1/200)

Format
Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.

Storage
Store at -20 °C.Stable for 12 months from date of receipt

Anti-ANT3 Antibody - 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}

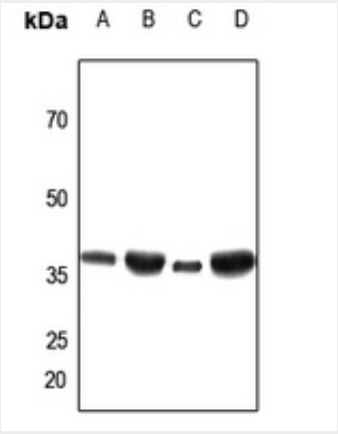
Tissue Location
Expressed in erythrocytes (at protein level).

Anti-ANT3 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 Cytomety
- Cell Culture

Anti-ANT3 Antibody - Images



Western blot analysis of ANT3 expression in mouse liver (A), mouse heart (B), rat liver (C), rat heart (D) whole cell lysates.

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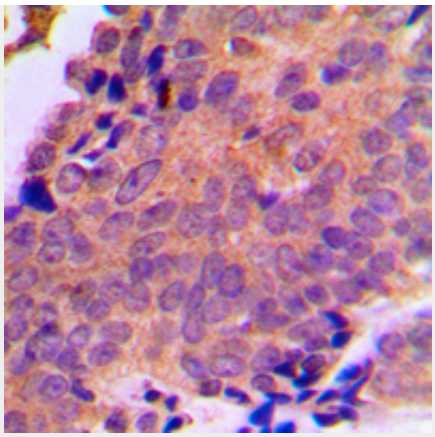

Immunohistochemical analysis of ANT3 staining in human breast cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

Anti-ANT3 Antibody - Background

KLH-conjugated synthetic peptide encompassing a sequence within the center region of human ANT3. The exact sequence is proprietary.