

DATASHEET

ANT4 Rabbit Polyclonal Antibody

CAT. NO. APA08230

KEY FEATURES

Target	ANT4	Source / Host	Rabbit
Reactivity	Human, Monkey	Clonality	Polyclonal
Applications	WB, IHC, IF/ICC	Conjugation	Unconjugated
Form / Buffer	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.		Storage at-20°C

BACKGROUND

ADP:ATP antiporter that mediates import of ADP into the mitochondrial matrix for ATP synthesis, and export of ATP out to fuel the cell . 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 . Specifically required during spermatogenesis, probably to mediate ADP:ATP exchange in spermatocytes . Large ATP supplies from mitochondria may be critical for normal progression of spermatogenesis during early stages of meiotic prophase I, including DNA double-strand break repair and chromosomal synapsis .

APPLICATION

To ensure optimal assay performance, AREX recommends conducting reagent titration tailored to each testing system for optimal detection results.

WB	1:500 - 1:1000
IHC	1:50 - 1:100
IF/ICC	1:50 - 1:200

*Results are sample-specific. Please refer to your local assay conditions and test parameters for reference.

PRODUCT OVERVIEW

Description	Rabbit polyclonal antibody to ANT4
Specificity	Recognizes endogenous levels of ANT4 protein.
Antibody Type	Primary antibody
Immunogen	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human ANT4. The exact sequence is proprietary.
Purification	The antibody was purified by immunogen affinity chromatography.
Molecular Weight	Predicted: 35 kD; Observed: 35 kD
Form/Buffer	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Alternative Names	AAC4; ANT4; SFEC; ADP/ATP translocase 4; ADP,ATP carrier protein 4; Adenine nucleotide translocator 4; ANT 4; Solute carrier family 25 member 31; Sperm flagellar energy carrier protein
Gene Symbol	SLC25A31
Entrez Gene	83447(Human)
SwissProt	Q9H0C2(Human)

*AREX continuously optimizes our products. Webpage content may not reflect the latest updates. For inquiries, please contact info@arexbio.com or your local distributor.

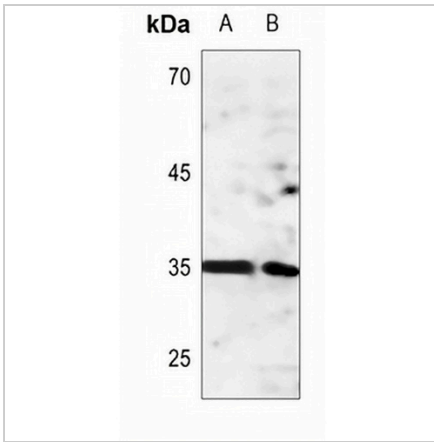
*Clone Number, Reactivity, Source/Host and Clonality can be found in the product name and Key Features section above.

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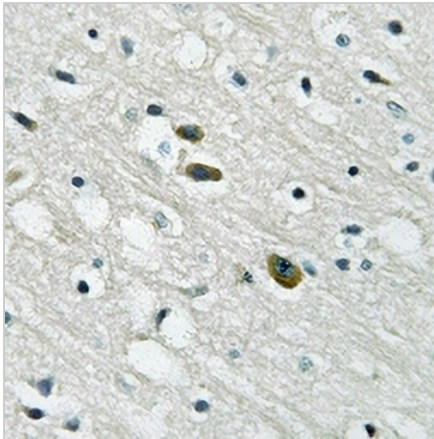
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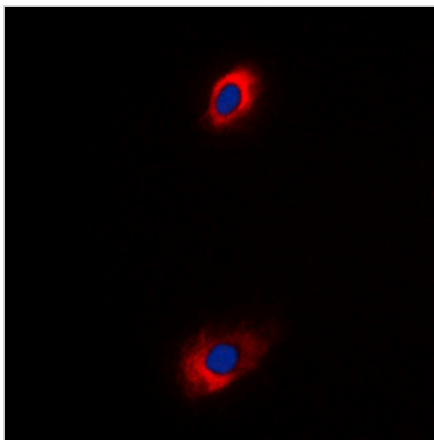
DATA



Western blot analysis of ANT4 expression in HEK293T (A), A549 (B) whole cell lysates. (Predicted band size: 35 kD; Observed band size: 35 kD)



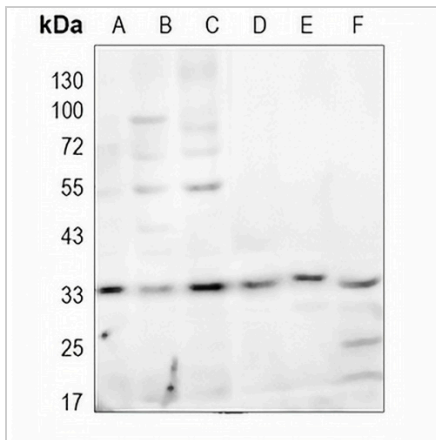
Immunohistochemical analysis of ANT4 staining in human brain formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of ANT4 staining in K562 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with a DyLight 594-conjugated secondary antibody (red) in PBS at room temperature in the dark. DAPI was used to stain the cell nuclei (blue).

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DATA (CONTINUED)

Western blot analysis of ANT4 expression in A2780 (A), MG63 (B), A375 (C), mouse kidney (D), rat lung (E), rat kidney (F) whole cell lysates. (Predicted band size: 35 kD; Observed band size: 35 kD)

STORAGE

Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.

NOTE

For Research Use Only. Not for diagnostic, therapeutics, prophylactic or in vivo use.