

ARALAR1 Antibody

Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP51515

Product Information

Application	WB
Primary Accession	<u>075746</u>
Reactivity	Human, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	74762

Additional Information

Gene ID	8604
Other Names	Calcium-binding mitochondrial carrier protein Aralar1, Mitochondrial aspartate glutamate carrier 1, Solute carrier family 25 member 12, SLC25A12, ARALAR1
Target/Specificity	KLH conjugated synthetic peptide derived from human ARALAR1
Dilution	WB~~ 1:1000
Format	0.01M PBS, pH 7.2, 0.09% (W/V) Sodium azide, Glycerol 50%
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

Name	SLC25A12 (<u>HGNC:10982</u>)
Function	Mitochondrial electrogenic aspartate/glutamate antiporter that favors efflux of aspartate and entry of glutamate and proton within the mitochondria as part of the malate-aspartate shuttle (PubMed: <u>11566871</u> , PubMed: <u>19641205</u> , PubMed: <u>24515575</u> , PubMed: <u>38945283</u>). Also mediates the uptake of L-cysteinesulfinate (3-sulfino-L-alanine) by mitochondria in exchange of L-glutamate and proton (PubMed: <u>11566871</u>). Can also exchange L-cysteinesulfinate with aspartate in their anionic form without any proton translocation (PubMed: <u>11566871</u>). Lacks transport activity towards L-glutamine or gamma-aminobutyric acid (GABA) (PubMed: <u>38945283</u>).
Cellular Location	Mitochondrion inner membrane; Multi-pass membrane protein
Tissue Location	Expressed predominantly in the heart and skeletal muscle, weakly in brain and kidney.

Background

Catalyzes the calcium-dependent exchange of cytoplasmic glutamate with mitochondrial aspartate across the mitochondrial inner membrane. May have a function in the urea cycle.

References

Del Arco A.,et al.J. Biol. Chem. 273:23327-23334(1998). Palmieri L.,et al.EMBO J. 20:5060-5069(2001). Hillier L.W.,et al.Nature 434:724-731(2005). Mural R.J.,et al.Submitted (SEP-2005) to the EMBL/GenBank/DDBJ databases. Kobayashi K.,et al.Nat. Genet. 22:159-163(1999).

Images



All lanes : Anti-ARALAR1 Antibody at 1:1000 dilution Lane 1: human skeletal muscle lysates Lane 2: human heart lysates Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L),Peroxidase conjugated at 1/10000 dilution Predicted band size : 75 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

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