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Anti-ARALAR1 Antibody

Catalog # AP51515

Product Information

Application	WB, IHC, IF/IC
Primary Accession	O75746
Reactivity	Human, Rat, Mk
Host	Rabbit
Clonality	Polyclonal
Calculated MW	74762

Additional Information

Gene ID	8604
Other Names	ARALAR1; Calcium-binding mitochondrial carrier protein Aralar1; Mitochondrial aspartate glutamate carrier 1; Solute carrier family 25 member 12
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human ARALAR1. The exact sequence is proprietary.
Dilution	WB~~ 1:1000 IHC~~1:100~500 IF/IC~~N/A
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

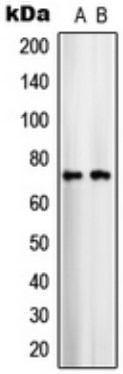
Protein Information

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

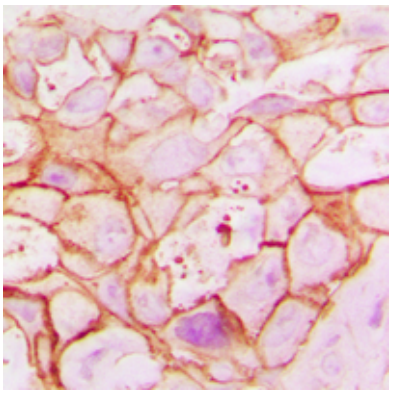
References

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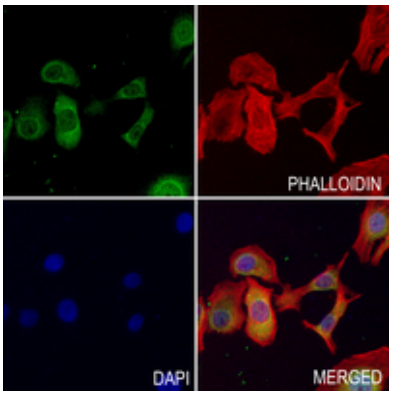
Images



Western blot analysis of ARALAR1 expression in COLO205 (A), U251MG (B) whole cell lysates. (Predicted band size: 74 kD; Observed band size: 74 kD)



Immunohistochemical analysis of ARALAR1 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.



Immunofluorescent analysis of ARALAR1 staining in HepG2 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 hidified chamber. Cells were washed with PBST and incubated with a AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AF594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).

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