



Rabbit Anti-SLC25A12 antibody

SL11953R

Product Name:	SLC25A12
Chinese Name:	钙结合Mitochondrion载体蛋白抗体
Alias:	AGC1; Araceli hiperlarga; ARALAR; ARALAR1; Calcium binding mitochondrial carrier superfamily member; Calcium-binding mitochondrial carrier protein Aralar1; CMC1_HUMAN; Mitochondrial aspartate glutamate carrier 1; SLC25A12; Solute carrier family 25 member 12; solute carrier family 25, member 12.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Dog,Cow,Horse,
Applications:	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	75kDa
Cellular localization:	cytoplasmicThe cell membrane
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human SLC25A12/ARALAR:101-200/678
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	Calcium signaling in mitochondria is important in order for it to function in response to a variety of extracellular stimuli. Signaling begins with Ca(2+) entry in mitochondria via the Ca(2+) uniporter followed by Ca(2+) activation of three dehydrogenases in the

mitochondrial matrix. ARALAR, the neuronal Ca(2+)-binding mitochondrial aspartate-glutamate carrier, has Ca(2+) binding domains facing the extramitochondrial space and functions in the malate-aspartate NADH shuttle (MAS). ARALAR is encoded by the SLC25A12 gene and is expressed in brain and skeletal muscle. ARALAR is required for the synthesis of brain aspartate and N-acetylaspartate and plays a role in myelin formation. It is also essential for the transmission of small Ca(2+) signals to mitochondria via an increase in mitochondrial NADH. In addition, ARALAR is implicated in conferring susceptibility to schizophrenia.

Function:

Calcium-dependent mitochondrial aspartate and glutamate carrier. May have a function in the urea cycle.

Subcellular Location:

Mitochondrion inner membrane.

Tissue Specificity:

High levels in heart and skeletal muscle, low in brain and very low in kidney.

DISEASE:

Defects in SLC25A12 are the cause of aspartate-glutamate carrier 1 deficiency (AGC1D) [MIM:612949]; also called global cerebral hypomyelination. This syndrome consists of a child severe psychomotor retardation, hypotonia and hypomyelination of the central nervous system.

Similarity:

Belongs to the mitochondrial carrier family.

Contains 4 EF-hand domains.

Contains 3 Solcar repeats.

SWISS:

O75746

Gene ID:

8604

Database links:

[Entrez Gene: 8604](#) Human

[Entrez Gene: 78830](#) Mouse

[Entrez Gene: 362145](#) Rat

[Omim: 603667](#) Human

[SwissProt: O75746](#) Human

[SwissProt: Q8BH59](#) Mouse

[Unigene: 470608](#) Human

[Unigene: 30928](#) Mouse

[Unigene: 483680](#) Mouse

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

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