

## Rabbit Anti-ATP13A2 antibody

SL11708R

Product Name:	ATP13A2
Chinese Name:	帕金森病相关蛋白ATP13A2抗体
Alias:	PARK9; AT132_HUMAN; Atp13a2; ATPase type 13A2; CLN12; HSA9947; KRPPD; PARK9; Probable cation transporting ATPase 13A2; Probable cation-transporting ATPase 13A2; Putative ATPase; RP1-37C10.4.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Pig,Cow,Horse,Rabbit,
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:	129kDa 🧹 💙
Cellular localization:	cytoplasmicThe cell membrane
Form:	Lyophilized or Liquid
<b>Concentration:</b>	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human ATP13A2:1001- 1080/1180 <extracellular></extracellular>
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:	ATP13A2 is a 1,180 amino acid multi-pass membrane protein that belongs to the P5 subfamily of ATPases which play an important role in the transportation of inorganic cations. Expressed as multiple alternative spliced isoforms, ATP13A2 functions to catalyze the conversion of ATP to ADP and a free phosphate, thereby participating in

the active transport of ions across cellular membranes. Defects in the gene encoding ATP13A2 are the cause of Kufor-Rakeb syndrome (KRS), a rare hereditary type of Parkinson's disease that exhibits juvenile onset and is characterized by neurodegeneration and dementia. The ATP13A2 gene maps to human chromosome 1, which spans 260 million base pairs, contains over 3,000 genes and comprises nearly 8% of the human genome.

## Function:

May play a role in intracellular cation homeostasis and the maintenance of neuronal integrity.

Subcellular Location: Membrane; Multi-pass membrane protein (By similarity). Lysosome.

## Tissue Specificity:

Expressed in brain; protein levels are markedly increased in brain from subjects with Parkinson disease and subjects with dementia with Lewy bodies. Detected in pyramidal neurons located throughout the cingulate cortex (at protein level). In the substantia nigra, it is found in neuromelanin-positive dopaminergic neurons (at protein level).

## **DISEASE:**

Defects in ATP13A2 are the cause of Kufor-Rakeb syndrome (KRS) [MIM:606693]; also known as Parkinson disease type 9 (PARK9). KRS is a rare hereditary disease with juvenile onset. In addition to typical signs of Parkinson disease, affected individuals show symptoms of more widespread neurodegeneration, including dementia.

Similarity:

Belongs to the cation transport ATPase (P-type) (TC 3.A.3) family. Type V subfamily.

SWISS: Q9NQ11

Gene ID: 23400

Database links:

Entrez Gene: 23400 Human

Entrez Gene: 74772 Mouse

Entrez Gene: 362645 Rat

SwissProt: Q9NQ11 Human

SwissProt: Q9CTG6 Mouse

	<u>Unigene: 128866</u> Human
	<u>Unigene: 205625</u> Mouse
	Unigene: 19659 Rat
	<u>Omim: 610513</u> Human
	<b>Important Note:</b> This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Picture:	
	Paraformaldehyde-fixed, paraffin embedded (rat brain); Antigen retrieval by boiling
	in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3%
	hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for
	30min; Antibody incubation with (ATP13A2) Polyclonal Antibody, Unconjugated
	(SL11708R) at 1:400 overnight at 4°C, followed by a conjugated secondary (sp-
	0023) for 20 minutes and DAB staining.

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