

SLC6A7 Rabbit pAb

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Catalog # AP54733

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q99884
Predicted	Rat, Pig, Dog, Human, Mouse, Chicken, Horse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	70911
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human SLC6A7/PROT
Epitope Specificity	151-260/636
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Membrane.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	The GAT1 gene family includes sodium- and chloride-dependent plasma membrane transporters for neurotransmitters, metabolites and osmolites, which couple substrate flux to transmembrane electrochemical gradients. PROT (Sodium-dependent proline transporter), also known as Solute carrier family 6 member 7, is a 636 amino acid multi-pass membrane protein that is a GAT1 family member specifically expressed in regions of the brain. PROT terminates the action of proline by its high affinity sodium/chloride-dependent reuptake into pre-synaptic terminals. Enriched in glutamatergic synaptic terminals, it is likely that PROT plays an important role in excitatory events of neurotransmission. PROT-mediated proline uptake is inhibited by compounds such as benztropine, LP-403812 and Des-Tyr-Leu-enkephalin (GGFL). These inhibitors of proline uptake may lead to the development of therapeutic agents for certain neurologic disorders.

Additional Information

Gene ID	6534
Other Names	Sodium-dependent proline transporter, Solute carrier family 6 member 7, SLC6A7 (HGNC:11054)
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,ELISA=1:500 0-10000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. 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.

Protein Information

Name	SLC6A7 (HGNC:11054)
Function	Brain specific sodium (and chloride)-dependent proline transporter (PubMed: 7651355). Terminates the action of proline by its high affinity sodium-dependent reuptake into presynaptic terminals (Probable).
Cellular Location	Synaptic cell membrane; Multi-pass membrane protein
Tissue Location	Brain specific (at protein level) (PubMed:7651355). Highly expressed in hippocampus, corpus striatum and temporal cortex Also expressed in frontal cortex, occipital cortex and, at lower levels, in cerebellum and parietal cortex (at protein level) (PubMed:7651355).

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Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.