

EAAT4 Rabbit pAb

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Catalog # AP55047

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	P48664
Predicted	Rat, Pig, Dog, Human, Mouse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	61565
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human EAAT4
Epitope Specificity	151-250/564
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; multi-pass membrane protein.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Excitatory Amino Acid Transporters (EAATs) are membrane-bound proteins that are localized in glial cells and pre-synaptic glutamatergic nerve endings. EAATs transport the excitatory neurotransmitters L-glutamate and D-aspartate, a process that is essential for terminating the postsynaptic action of glutamate. The re-uptake of amino acid neurotransmitters by EAAT proteins has been shown to protect neurons from excitotoxicity, which is caused by the accumulation of amino acid neurotransmitters. EAAT4 is an aspartate/glutamate transporter that is expressed predominantly in the cerebellum. The transport activity encoded by EAAT4 has high apparent affinity for L-aspartate and L-glutamate, and has a pharmacologic profile consistent with previously described cerebellar transport activities. EAAT5 is a glutamate transporter coupled to a chloride conductance which is expressed primarily in retina. Although EAAT5 shares the structural homologies of the EAAT family, a novel feature of the EAAT5 sequence is a carboxy-terminal motif previously identified in N-ethyl-D-aspartate receptors and potassium channels and shown to confer interactions with a family of synaptic proteins that promote ion channel clustering.

Additional Information

Gene ID	6511
Other Names	Excitatory amino acid transporter 4, Sodium-dependent glutamate/aspartate transporter, Solute carrier family 1 member 6, SLC1A6 (HGNC:10944), EAAT4
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-

500,ELISA=1:5000-10000

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	SLC1A6 (HGNC:10944)
Synonyms	EAAT4
Function	Sodium-dependent, high-affinity amino acid transporter that mediates the uptake of L-glutamate and also L-aspartate and D-aspartate (PubMed: 26690923 , PubMed: 7791878). Functions as a symporter that transports one amino acid molecule together with two or three Na(+) ions and one proton, in parallel with the counter-transport of one K(+) ion. Mediates Cl(-) flux that is not coupled to amino acid transport; this avoids the accumulation of negative charges due to aspartate and Na(+) symport (PubMed: 7791878). Plays a redundant role in the rapid removal of released glutamate from the synaptic cleft, which is essential for terminating the postsynaptic action of glutamate (Probable).
Cellular Location	Cell membrane; Multi-pass membrane protein
Tissue Location	Brain, mainly in the cerebellum (PubMed:7791878). Expressed densely and selectively in cell bodies of Purkinje cells

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