

EAAT3 Polyclonal Antibody
Catalog # AP69632**Specification****EAAT3 Polyclonal Antibody - Product Information**

Application	WB
Primary Accession	P43005
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal

EAAT3 Polyclonal Antibody - Additional Information**Gene ID** 6505**Other Names**

SLC1A1; EAAC1; EAAT3; Excitatory amino acid transporter 3; Excitatory amino-acid carrier 1; Neuronal and epithelial glutamate transporter; Sodium-dependent glutamate/aspartate transporter 3; Solute carrier family 1 member 1

Dilution

WB~~Western Blot: 1/500 - 1/2000. ELISA: 1/10000. Not yet tested in other applications.

Format

Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.

Storage Conditions

-20°C

EAAT3 Polyclonal Antibody - Protein Information**Name** SLC1A1 ([HGNC:10939](#))**Function**

Sodium-dependent, high-affinity amino acid transporter that mediates the uptake of L-glutamate and also L-aspartate and D-aspartate (PubMed:21123949, PubMed:26690923, PubMed:33658209, PubMed:7521911, PubMed:7914198, PubMed:8857541). Can also transport L-cysteine (PubMed:21123949). 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 (PubMed:26690923, PubMed:33658209, PubMed:7521911).

target="_blank">7521911, PubMed:8857541). 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:26690923, PubMed:8857541). Plays an important role in L- glutamate and L-aspartate reabsorption in renal tubuli (PubMed:21123949). 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 (By similarity). Contributes to glutathione biosynthesis and protection against oxidative stress via its role in L-glutamate and L-cysteine transport (By similarity). Negatively regulated by ARL6IP5 (By similarity).

Cellular Location

Cell membrane; Multi-pass membrane protein {ECO:0000250|UniProtKB:P43003}. Apical cell membrane; Multi-pass membrane protein {ECO:0000250|UniProtKB:P43003}. Synapse, synaptosome {ECO:0000250|UniProtKB:P51906}. Early endosome membrane {ECO:0000250|UniProtKB:P51906}. Late endosome membrane {ECO:0000250|UniProtKB:P51906}. Recycling endosome membrane {ECO:0000250|UniProtKB:P51906}

Tissue Location

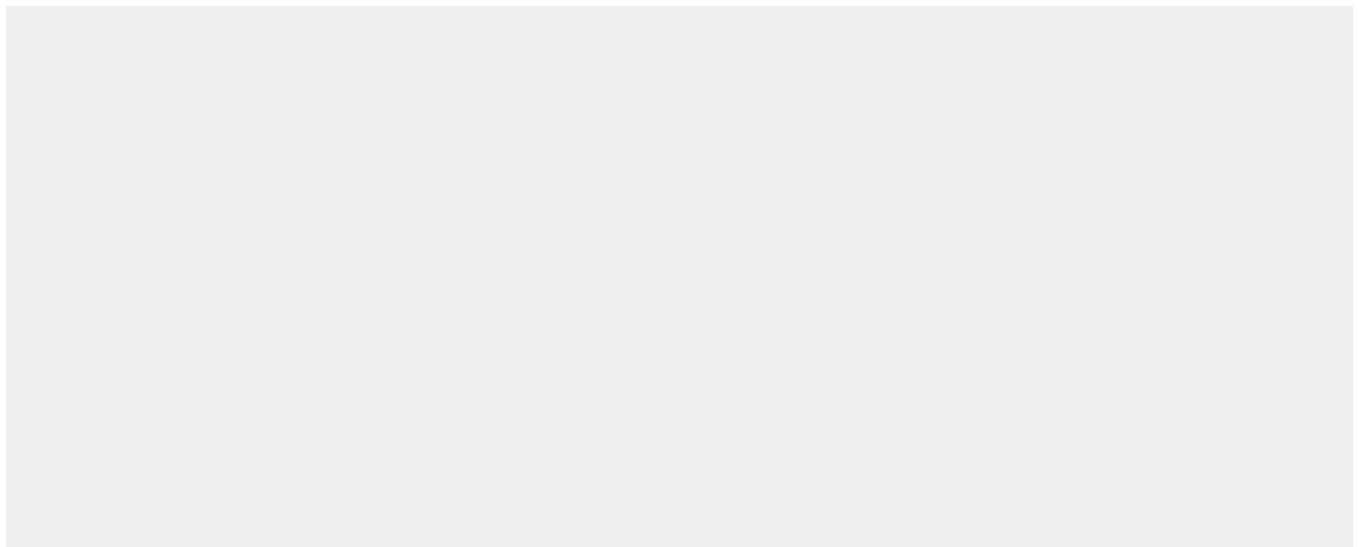
Expressed in all tissues tested including liver, muscle, testis, ovary, retinoblastoma cell line, neurons and brain (in which there was dense expression in substantia nigra, red nucleus, hippocampus and in cerebral cortical layers)

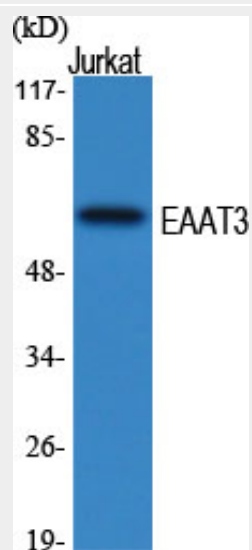
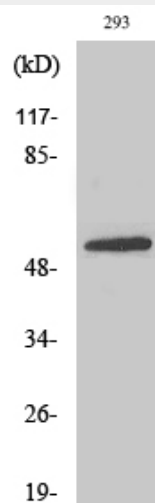
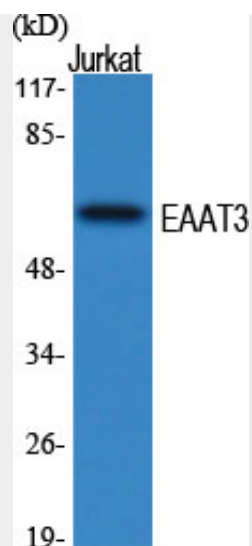
EAAT3 Polyclonal Antibody - Protocols

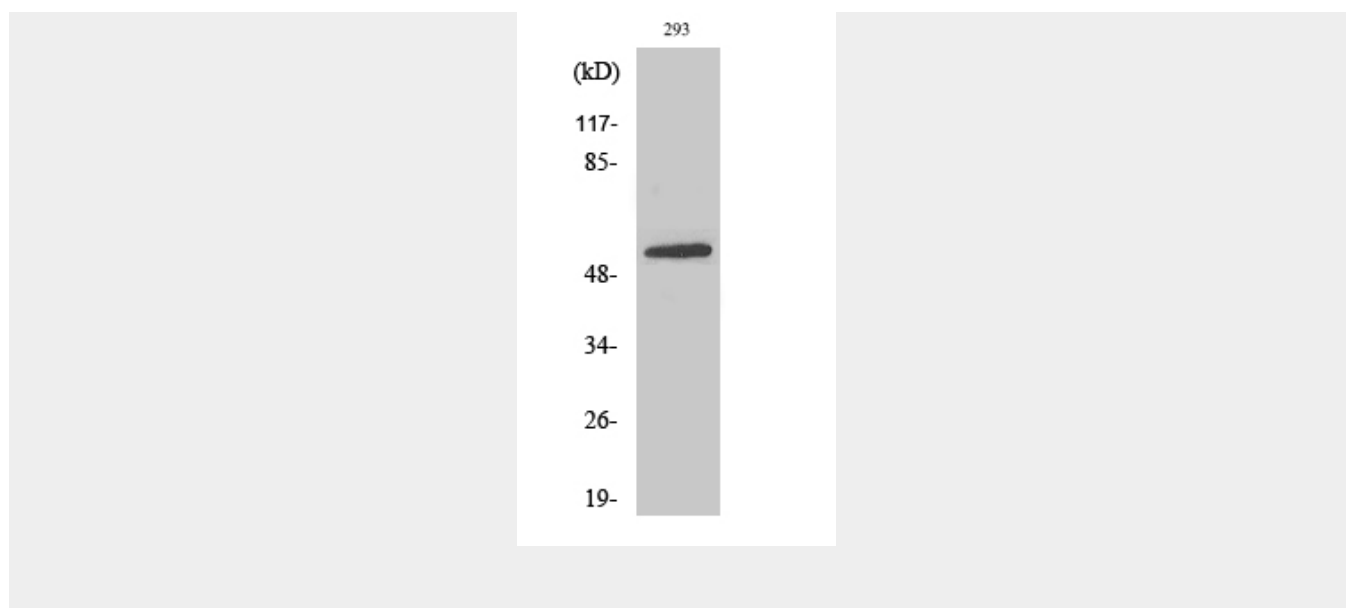
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

EAAT3 Polyclonal Antibody - Images







EAAT3 Polyclonal Antibody - Background

Sodium-dependent, high-affinity amino acid transporter that mediates the uptake of L-glutamate and also L-aspartate and D-aspartate (PubMed:7914198, PubMed:7521911, PubMed:8857541, PubMed:26690923, PubMed:21123949). Can also transport L-cysteine (PubMed:21123949). 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 (PubMed:7521911, PubMed:8857541, PubMed:26690923). 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:8857541, PubMed:26690923). Plays an important role in L-glutamate and L-aspartate reabsorption in renal tubuli (PubMed:21123949). 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 (By similarity). Negatively regulated by ARL6IP5 (By similarity).