

Specification

Application	WB
Primary Accession	P43003
Other Accession	NP_004163.3 , NP_001160167.1 , 6507 , 29483
	(rat)
Reactivity	Human
Predicted	Rat
Host	Goat
Clonality	Polyclonal
Concentration	0.5 mg/ml
Isotype	IgG
Calculated MW	59572

Sodium-dependent, high-affinity amino acid transporter that mediates the uptake of L-glutamate and also L-aspartate and D-aspartate (PubMed:20477940, PubMed:26690923, PubMed:28032905, PubMed:28032905)

[28424515](http://www.uniprot.org/citations/28424515), PubMed:<[7521911](http://www.uniprot.org/citations/7521911)>, PubMed:<[8123008](http://www.uniprot.org/citations/8123008)>). 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:<[20477940](http://www.uniprot.org/citations/20477940)>). 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:<[20477940](http://www.uniprot.org/citations/20477940)>). 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).

Cellular Location

Cell membrane; Multi-pass membrane protein

Tissue Location

Detected in brain (PubMed:7521911, PubMed:8123008, PubMed:8218410). Detected at very much lower levels in heart, lung, placenta and skeletal muscle (PubMed:7521911, PubMed:8123008). Highly expressed in cerebellum, but also found in frontal cortex, hippocampus and basal ganglia (PubMed:7521911).

EAAT1 / GLAST1 (aa197-208) Antibody (internal region) - 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](#)

EAAT1 / GLAST1 (aa197-208) Antibody (internal region) - Images



AF3917a (0.1 µg/ml) staining of Human Frontal Cortex lysate (35 µg protein in RIPA buffer).

Primary incubation was 1 hour. Detected by chemiluminescence.

EAAT1 / GLAST1 (aa197-208) Antibody (internal region) - Background

This antibody is expected to recognize isoform 1 (NP_004163.3) and isoform 2 (NP_001160167.1).

EAAT1 / GLAST1 (aa197-208) Antibody (internal region) - References

Water and urea permeation pathways of the human excitatory amino acid transporter EAAT1.
Vandenberg RJ, Handford CA, Campbell EM, Ryan RM, Yool AJ. Biochem J. 2011 Oct
15;439(2):333-40. PMID: 21732909