

## Summary

Production Name	EAAT3 (4R8) Rabbit Monoclonal Antibody
Description	Rabbit Monoclonal Antibody
Host	Rabbit
Application	WB,ELISA
Reactivity	Human, Mouse, Rat

#### Performance

Conjugation	Unconjugated
Modification	Unmodified
lsotype	IgG
Clonality	Monoclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% New type
Buffer	preservative N and 50% glycerol. Store at $+4^{\circ}$ C short term. Store at $-20^{\circ}$ C long term.
	Avoid freeze / thaw cycle.
Purification	Affinity purification

## Immunogen

Gene Name	SLC1A1
Alternative Names	SLC1A1, EAAC1, EAAT3, Eaac-1;
Gene ID	6505.0
SwissProt ID	P43005.

# Application

Dilution Ratio	WB 1:1000-1:5000
Molecular Weight	57kDa



#### Background

Transports L-glutamate and also L- and D-aspartate. Essential for terminating the postsynaptic action of glutamate by rapidly removing released glutamate from the synaptic cleft. Acts as a symport by cotransporting sodium. Negatively regulated by ARL6IP5. Sodium-dependent, high-affinity amino acid transporter that mediates the uptake of L-glutamate and also L-aspartate and D-aspartate (PubMed: <a href="http://www.uniprot.org/citations/7914198" target=" blank">7914198</a>, PubMed:<a href="http://www.uniprot.org/citations/7521911" target=" blank">7521911</a>, PubMed:<a href="http://www.uniprot.org/citations/8857541" target=" blank">8857541</a>, PubMed:<a href="http://www.uniprot.org/citations/26690923" target=" blank">26690923</a>, PubMed:<a href="http://www.uniprot.org/citations/21123949" target=" blank">21123949</a>). Can also transport L-cysteine (PubMed:<a href="http://www.uniprot.org/citations/21123949" target=" blank">21123949</a>). Functions as a symporter that transports one amino acid molecule together with two or three Na(+) ions and one proton, in parallel with the countertransport of one K(+) ion (PubMed:<a href="http://www.uniprot.org/citations/7521911" target=" blank">7521911</a>, PubMed:<a href="http://www.uniprot.org/citations/8857541" target=" blank">8857541</a>, PubMed:<a href="http://www.uniprot.org/citations/26690923" target=" blank">26690923</a>). 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:<a href="http://www.uniprot.org/citations/8857541" target=" blank">8857541</a>, PubMed:<a href="http://www.uniprot.org/citations/26690923" target=" blank">26690923</a>). Plays an important role in Lglutamate and L-aspartate reabsorption in renal tubuli (PubMed:<a href="http://www.uniprot.org/citations/21123949" target=" blank">21123949</a>). 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).

### **Research Area**

#### Image Data





Western blot analysis of EAAT3 expression in Human fetal brain lysate.

#### Note

For research use only.