10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

SLC1A3 Antibody (N-Term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP22259a

Product Information

Application	WB, E
Primary Accession	P43003
Other Accession	P46411
Reactivity	Human, Rat, Mouse
Predicted	Bovine
Host	Rabbit
Clonality	polyclonal
Isotype	Rabbit IgG
Clone Names	RB56711
Calculated MW	59572

Additional Information

Gene ID	6507
Other Names	Excitatory amino acid transporter 1, Sodium-dependent glutamate/aspartate transporter 1, GLAST-1, Solute carrier family 1 member 3, SLC1A3, EAAT1, GLAST, GLAST1
Target/Specificity	This SLC1A3 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 127-161 amino acids from human SLC1A3.
Dilution	WB~~1:8000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	SLC1A3 Antibody (N-Term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	SLC1A3 (HGNC:10941)
Function	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:28424515, PubMed:7521911, PubMed: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). 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). 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).

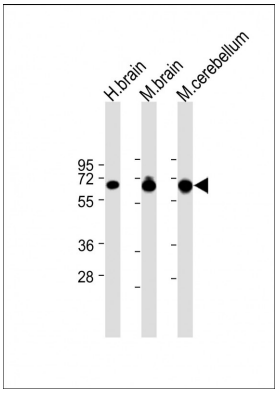
Background

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.

References

Shashidharan P.,et al.Biochim. Biophys. Acta 1216:161-164(1993).
Arriza J.L.,et al.J. Neurosci. 14:5559-5569(1994).
Kawakami H.,et al.Biochem. Biophys. Res. Commun. 199:171-176(1994).
Stoffel W.,et al.FEBS Lett. 386:189-193(1996).
Vallejo-Illarramendi A.,et al.J. Neurochem. 95:341-348(2005).

Images



All lanes : Anti-SLC1A3 Antibody (N-Term) at 1:8000 dilution Lane 1: Human brain lysate Lane 2: Mouse brain lysate Lane 3: Mouse cerebellum lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 60 kDa Blocking/Dilution buffer: 5% NFDM/TBST.