Excitatory Amino Acid Transporter 1 (EAAT1) ELISA Kit for Mouse

PRODUCT OVERVIEW

Product Name	Excitatory Amino Acid Transporter 1 (EAAT1), ELISA Kit
Full Product Name	Mouse Excitatory Amino Acid Transporter 1 ELISA Kit
Product Gene Name	EAAT1 elisa kit
Species Reactivity	Mouse
Assay Type	Quantitative Sandwich
Detection Range	0.25ng/ml-8ng/ml
Sensitivity	0.1ng/ml
Preparation and Storage	Store all reagents at 2-8 degree C
Inter-assay Precision	Inter-assay CV (%) is less than 15%. [CV(%) = SD/mean ×100]. All CV% should be compared by concentration, not compared by OD values.
Intra-assay Precision	Intra-assay CV (%) is less than 15%.
Molecular Weight	59,572 Da
OMIM	600111
3D Structure	ModBase 3D Structure for P43003
Related Product Information for EAAT1 elisa kit	Background/Introduction: This Quantitative Sandwich ELISA kit is for lab reagent/research use only, not for drug, household, therapeutic or test applications! This kit is intended to be used to determine the level of EAAT1 (hereafter termed "analyte") in undiluted original Mouse serum, plasma or tissue homogenates samples. For other sample types please contact tech support to determine compatibility with this assay. This kit is not suitable for assaying non-biological sources of substances.
Other Notes	Small volumes of EAAT1 elisa kit vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for EAAT1 purchase	MBS083083 is a ready-to-use microwell, strip plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Excitatory Amino Acid Transporter 1 (EAAT1) ELISA Kit target analytes in biological samples. The concentration gradients of the kit standards or positive controls render a theoretical kit detection range in biological research samples containing EAAT1. The ELISA analytical biochemical technique of the MBS083083 kit is based on EAAT1 antibody-EAAT1 antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect EAAT1 antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, EAAT1. Appropriate sample types may include undiluted body fluids and/or tissue homogenates, secretions. Quality control assays assessing reproducibility identified the intra-assay CV (%) and inter-assay CV(%).

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for EAAT1. It may not necessarily be applicable to this product.

NCBI GI #	584277111
NCBI GeneID	6507
NCBI Accession #	NP_001276868.1
UniProt Primary Accession #	P43003
UniProt Secondary Accession #	Q4JCQ8; B2R5T3

UniProt Related Accession #	P43003
GenBank Nucleotide #	NM_001289939.1
NCBI Official Full Name	excitatory amino acid transporter 1 isoform 4
NCBI Official Synonym Full Names	solute carrier family 1 (glial high affinity glutamate transporter), member 3
NCBI Official Symbol	SLC1A3
NCBI Official Synonym Symbols	EA6; EAAT1; GLAST; GLAST1
UniProt Protein Name	Excitatory amino acid transporter 1
UniProt Synonym Protein Names	Sodium-dependent glutamate/aspartate transporter 1; GLAST-1; Solute carrier family 1 member 3
Protein Family	Excitatory amino acid transporter
UniProt Gene Name	SLC1A3
UniProt Synonym Gene Names	EAAT1; GLAST; GLAST1; GLAST-1
UniProt Entry Name	EAA1_HUMAN
NCBI Protein Information	excitatory amino acid transporter 1; GLAST-1; solute carrier family 1 member 3; sodium-dependent glutamate/aspartate transporter 1
NCBI Summary for EAAT1	This gene encodes a member of a member of a high affinity glutamate transporter family. This gene functions in the termination of excitatory neurotransmission in central nervous system. Mutations are associated with episodic ataxia, Type 6. Alternative splicing results in multiple transcript variants.[provided by RefSeq, Feb 2014]
UniProt Comments for EAAT1	SLC1A3: 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. Highly expressed in cerebellum, but also found in frontal cortex, hippocampus and basal ganglia. Belongs to the sodium:dicarboxylate (SDF) symporter (TC 2.A.23) family. SLC1A3 subfamily. 2 isoforms of the human protein are produced by alternative splicing. Protein type: Mitochondrial; Transporter, SLC family; Membrane protein, integral; Transporter; Membrane protein, multi-pass Chromosomal Location of Human Ortholog: 5p13 Cellular Component: cell surface; cell projection; cell soma; membrane; fibril; plasma membrane; integral to membrane Molecular Function: glutamate binding; high-affinity glutamate transmembrane transporter activity; sodium:dicarboxylate symporter activity; L-glutamate transmembrane transporter activity Biological Process: response to drug; response to light stimulus; auditory behavior; cranial nerve development; glutamate biosynthetic process; positive regulation of synaptic transmission; response to antibiotic; L-glutamate import; synaptic transmission; sensory perception of sound; neuron morphogenesis during differentiation; gamma-aminobutyric acid biosynthetic process; response to wounding; neurotransmitter uptake; ion transport; neuromuscular process controlling balance; transmembrane transport Disease: Episodic Ataxia, Type 6
Research Articles on EAAT1	**1.** Increased SLC1A3 expression in the cerebellum of elderly schizophrenia patients indicates facilitated transport and may result in reduced glutamate neurotransmission.
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