

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human EAAT1/GLAST-1 in direct ELISAs.
Source	Monoclonal Mouse IgG _{2B} Clone # 482420
Purification	Protein A or G purified from ascites
Immunogen	<i>E. coli</i> -derived recombinant human EAAT1/GLAST-1 His146-Ser237 Accession # P43003
Conjugate	Alexa Fluor 594 Excitation Wavelength: 590 nm Emission Wavelength: 617 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

Immunohistochemistry Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

GLAST-1 (Sodium dependent GLU/ASp Transporter 1; also SLC1A3 and EAAT1) is a 60-62 kDa member of the SDF symporter family of molecules. It is expressed by glia, fibroblasts, and select neuron cell types such as hippocampal neurons. EAAT1 is known to transport L-glutamate into glia, thus removing glutamate from synaptic areas where it either acts too long, or becomes toxic at elevated concentration. Its action is dependent on its ability to cotransport sodium. Human EAAT1 is a 542 amino acid (aa), 8-transmembrane variably glycosylated protein that contains N- and C-terminal cytoplasmic domains. Homodimers are reported to exist, but only when EAAT1 shows glycosylation. There are at least two potential isoform variants. One shows an Arg substitution for aa 430-475, while a second shows a four aa substitution for aa 62-542. Over an extracellular loop that encompasses aa 146-237, human EAAT1 shares 92% aa identity with mouse EAAT1.

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