Synaptic Systems

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EAAT 1 extracellular domain

Cat.No. 250-1P; control peptide, 100 µg peptide (lyophilized)

Data Sheet

Reconstitution/ Storage	100 µg peptide, lyophilized. For reconstitution add 100 µl H_2O to get a 1mg/ml solution in PBS. Then aliquot and store at -20°C until use. Control peptides should also be stored at -20°C when still lyophilized!
Immunogen	Synthetic peptide corresponding to AA 186 to 202 from rat EAAT1 (UniProt Id: P24942)
Recommended dilution	Optimal concentrations should be determined by the end-user.
matching antibodies	250 103
Remarks	This control peptide consists of the synthetic peptide (aa 186 - 202 of rodent EAAT 1) that has been used for immunization. It has been tested in preadsorption experiments and blocks efficiently and specifically the corresponding signal in Western blots. The amount of peptide needed for efficient blocking depends on the titer and on the affinity of the antibody to the antigen.

TO BE USED IN VITRO / FOR RESEARCH ONLY
NOT TOXIC, NOT HAZARDOUS, NOT INFECTIOUS, NOT CONTAGIOUS

Glutamate is the major excitatory neurotransmitter in the mammalian central nervous system. After the release of glutamate from synaptic vesicles into the synaptic cleft during neurotransmission, **e**xcitatory **a**mino **a**cid **t**ransporters (**EAAT**s) remove extracellular glutamate to avoid excitotoxic levels. Five EAATs with differential expression patterns have been described so far: **EAAT 1**, also referred to as **GLAST** and **SLC1A3**, has neuroprotective potential following ischemia and is expressed by reactive astrocytes and activated microglia. **EAAT 2** (**GLT-1, SLC1A2**) is the most abundant and primarily expressed in astrocytes. **EAAT 3 / SLC1A1** is expressed in neurons and has also been shown to be involved in the uptake of extracelluar cysteine. EAAT 4 shows weak expression in the forebrain and high levels in Purkinje cells of the cerebellum. EAAT 5 has only been described for humans and is primarily expressed in the retina.

Selected General References

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