Synaptic Systems

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EAAT 1 cytoplasmic domain

Cat.No. 250 114; Polyclonal Guinea pig antibody, 100 µl antiserum (lyophilized)

Data Sheet

Reconstitution/ Storage	100 µl antiserum, lyophilized. For reconstitution add 100 µl H_2O, then aliquot and store at -20°C until use.
Applications	**WB**: 1 : 1000 up to 1 : 5000 (AP staining) **IP**: not tested yet **ICC**: 1 : 500 up to 1 : 1000 **IHC**: 1 : 500 up to 1 : 1000 **IHC-P/FFPE**: 1 : 500
Immunogen	Synthetic peptide corresponding to AA 522 to 541 from rat EAAT1 (UniProt Id: P24942)
Reactivity	Reacts with: rat, mouse. Other species not tested yet.
Specificity	Specific for EAAT 1.
matching control	250-11P

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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