**BACKGROUND**

Excitatory amino acid transporter 1 (EAAT1) is one of the two glial glutamate transporters that clear the extracellular glutamate generated during neuronal signal transmission. Excitatory amino acid transporters (EAATs) are membrane-bound proteins that are localized in glial cells and pre-synaptic glutamatergic nerve endings. EAATs transport the excitatory neurotransmitters L-glutamate and D-aspartate, a process that is essential for terminating the postsynaptic action of glutamate. The reuptake of amino acid neurotransmitters by EAAT proteins has been shown to protect neurons from excitotoxicity, which is caused by the accumulation of amino acid neurotransmitters. Three glutamate transporters have been identified in human brain, designated EAAT1-3. EAAT1 and EAAT3 are also expressed in various non-nervous tissues, while EAAT2 expression appears to be restricted to the brain. Surface expression of the glial glutamate transporter EAAT1 is stimulated by Insulin-like growth factor 1 through activation of phosphatidylinositol-3-kinase.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: SLC1A2 (human) mapping to 11p13; Slc1a2 (mouse) mapping to 2 E2.

**SOURCE**

EAAT2 (E-1) is a mouse monoclonal antibody raised against amino acids 1-85 mapping near the N-terminus of EAAT2 of human origin.

**PRODUCT**

Each vial contains 200 µg IgG2b kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

EAAT2 (E-1) is available conjugated to agarose (sc-365634 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365634 HRP), 200 µg/ml, for WB, IHC(PI) and ELISA; to either phycoerythrin (sc-365634 PE), fluorescein (sc-365634 FITC), Alexa Fluor® 488 (sc-365634 AF488), Alexa Fluor® 546 (sc-365634 AF546), Alexa Fluor® 594 (sc-365634 AF594) or Alexa Fluor® 647 (sc-365634 AF647), 200 µg/ml, for WB (RGB), IF, IHC(PI) and FCM; and to either Alexa Fluor® 680 (sc-365634 AF680) or Alexa Fluor® 790 (sc-365634 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

**APPLICATIONS**

EAAT2 (E-1) is recommended for detection of EAAT2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).


Molecular Weight of EAAT2: 70 kDa.

Positive Controls: SH-SY5Y cell lysate: sc-3812, U-87 MG cell lysate: sc-2411 or HeLa whole cell lysate: sc-2200.

**DATA**

EAAT2 (E-1) siRNA expression in SH-SY5Y (A), U-87 MG (B) and HeLa (C) whole cell lysates and human fetal brain (D) and mouse brain (E) tissue extracts.

**SELECT PRODUCT CITATIONS**


**STORAGE**

Store at 4°C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**RESEARCH USE**

For research use only, not for use in diagnostic procedures.