Technical Data Sheet

Purified Mouse Anti-Rat EAAT2

Product Information
Material Number: 611654
Alternate Name: Excitatory amino acid transporter 2; Glutamate transporter 1; GLT1
Size: 50 µg
Concentration: 250 µg/ml
Clone: 20/EAAT2
Immunogen: Human EAAT2 aa. 562-574
Isotype: Mouse IgG1
Reactivity: QC Testing: Rat
Target MW: 66 kDa
Storage Buffer: Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description
Electrogenic-coupled (Na+ and K+) glutamate transporters in nerve terminals and glial cells are essential for maintaining subtoxic levels of extracellular excitatory amino acid neurotransmitters (e.g. glutamate and aspartate). They are also important for modifying synaptic transmission through the cotransport of ions and neurotransmitters. Excitatory amino acid transporter 2 (EAAT2) has 8 α-helical transmembrane domains and two reentrant pore-loop-like structures whose conformation is altered during ion neurotransmitter transport. EAAT2 is primarily expressed in astrocytes in adult brain and spinal cord, however it is also found in axons during fetal development. Mice deficient in EAAT2 exhibit lethal epileptic seizures with destruction of hippocampal neurons and an increased susceptibility to cold-induced cortical injury. Such defects in glutamine transporters have also been implicated in stroke, brain trauma, Alzheimer's disease, amyotrophic lateral sclerosis, and Huntington's disease. Thus, glutamine transporters, such as EAAT2, are critical for prevention of neurotoxic brain injury and may regulate glutamatergic synaptic transmission.

This antibody is routinely tested by western blot analysis. Other applications were tested at BD Biosciences Pharmingen during antibody development only or reported in the literature.

Preparation and Storage
The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography. Store undiluted at -20°C.

Application Notes

<table>
<thead>
<tr>
<th>Application</th>
<th>Routine Tested</th>
</tr>
</thead>
<tbody>
<tr>
<td>Western blot</td>
<td></td>
</tr>
</tbody>
</table>

BD Biosciences

bdbiosciences.com

United States | Canada | Europe | Japan | Asia Pacific | Latin America/Caribbean
877.232.8095 | 866.256.0827 | 52.517.20350 | 0120.8555.99 | 65.961.0633 | 55.313.183.995

For country-specific contact information, visit bdbiosciences.com/how_to_order/

Conditions: The information disclosed herein is not to be construed as a recommendation to use the above product in violation of any patents. BD Biosciences will not be held responsible for patent infringement or other violations that may result with the use of our products. Purchase does not include or convey any right to resell or transfer the product, either as a standalone product or as a component of another product. Any use of this product other than the permitted use without the express written authorization of BD Biosciences and Company is strictly prohibited.

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Not for resale.

BD, BD Logo and all other trademarks are the property of Becton, Dickinson and Company. ©2006 BD
### Suggested Companion Products

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Name</th>
<th>Size</th>
<th>Clone</th>
</tr>
</thead>
<tbody>
<tr>
<td>611463</td>
<td>Rat Cerebrum Lysate</td>
<td>500 µg</td>
<td>(none)</td>
</tr>
<tr>
<td>554002</td>
<td>HRP Goat Anti-Mouse Igs</td>
<td>1.0 ml</td>
<td>(none)</td>
</tr>
</tbody>
</table>

### Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
3. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
4. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.

### References


Kirschner MA, Copeland NG, Gilbert DJ, Jenkins NA, Amara SG. Mouse excitatory amino acid transporter EAAT2: isolation, characterization, and proximity to neuroexcitability loci on mouse chromosome 2. Genomics. 1994; 24(2):218-224 (Biology)
