Datasheet for ABIN968727

anti-SRR antibody (AA 127-248)

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Overview

Quantity:	150 µg
Target:	SRR
Binding Specificity:	AA 127-248
Reactivity:	Rat, Mouse
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This SRR antibody is un-conjugated
Application:	Western Blotting (WB), Immunofluorescence (IF)

Product Details

Immunogen:	Mouse serine racemase aa. 127-248
Clone:	29-Serine Racemase
Isotype:	IgG1
Cross-Reactivity:	Rat (Rattus)
Characteristics:	1. Since applications vary, each investigator should titrate the reagent to obtain optimal results. 2. Please refer to us for technical protocols. 3. 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. 4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity

Product Details

	chromatography.

Target Details

Target:	SRR
Alternative Name:	Serine Racemase (SRR Products)
Background:	The majority of synapses in the central nervous system utilize glutamate as a neurotransmitter to produce rapid neuronal excitation. Glutamate has a diverse array of receptors that can be categorized into two groups: ionotropic and metabotropic. The ionotropic receptors are subdivided into two distinct types: 1) receptors for N-methyl D-aspartate (NMDAR) and 2) non-NMDA receptors for AMPA and kainate. NMDA receptors require coactivation at both glutamate and glycine sites. D-serine is a D-amino acid found in mammalian tissues that can act as a potent ligand for the glycine site on NMDA receptors. D-serine is made by the enzyme serine racemase, which is a member of the pyridoxal-5' phosphate (PLP)-dependent enzyme family. Serine racemase mRNA is expressed in brain and liver, and serine racemase protein is expressed in glial cells. Degradation of D-serine by D-amino acid oxidase attenuates NMDA receptor-mediated calcium influx, and implicates D-serine as an endogenouse modulator of NMDA receptor function. Thus, glial cell production of D-serine via serine racemase activity may be an important system for modulation of synaptic transmission. This antibody is routinely tested by western blot analysis.
Molecular Weight:	38 kDa

Application Details

Comment:	Related Products: ABIN968540, ABIN967389
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	250 µg/mL
Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09 % sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

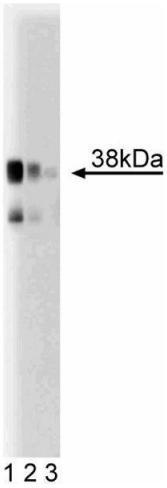
Handling

Storage:	-20 °C
Storage Comment:	Store undiluted at -20° C.

Publications

Product cited in:	Mothet, Parent, Wolosker, Brady, Linden, Ferris, Rogawski, Snyder: "D-serine is an endogenous ligand for the glycine site of the N-methyl-D-aspartate receptor." in: **Proceedings of the National Academy of Sciences of the United States of America**, Vol. 97, Issue 9, pp. 4926-31, (2000) (PubMed). Wolosker, Blackshaw, Snyder: "Serine racemase: a glial enzyme synthesizing D-serine to regulate glutamate-N-methyl-D-aspartate neurotransmission." in: **Proceedings of the National Academy of Sciences of the United States of America**, Vol. 96, Issue 23, pp. 13409-14, (1999) (PubMed).

Images



Western Blotting

Image 1. Western blot analysis of serine racemase in a mouse cerebrum lysate. Lane 1: 1:500, lane 2: 1:1000, lane 3: 1:2000 dilution of the anti- serine racemase antibody.