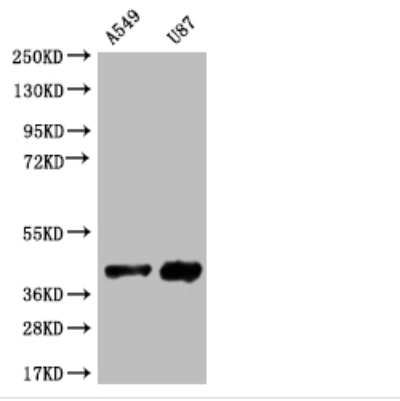
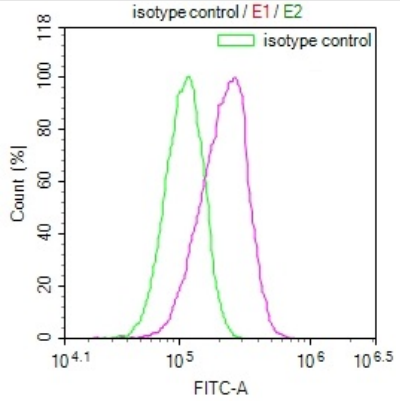
SRR Recombinant Monoclonal Antibody

Product Code	CSB-RA945827A0HU
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	Q9GZT4
Immunogen	A synthesized peptide derived from human SRR
Species Reactivity	Human
Tested Applications	ELISA, WB, FC; Recommended dilution: WB:1:500-1:2000, FC:1:50-1:200
Relevance	Catalyzes the synthesis of D-serine from L-serine. D-serine is a key coagonist with glutamate at NMDA receptors. Has dehydratase activity towards both L-serine and D-serine. {ECO:0000269|PubMed:11054547, ECO:0000269|PubMed:20106978}.
Form	Liquid
Conjugate	Non-conjugated
Storage Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purification Method	Affinity-chromatography
Isotype	Rabbit IgG
Clonality	Monoclonal
Product Type	Recombinant Antibody
Immunogen Species	Homo sapiens (Human)
Research Area	Neuroscience
Gene Names	SRR
Clone No.	12B2

Image



Western Blot
Positive WB detected in: A549 whole cell lysate, U87 whole cell lysate
All lanes: SRR antibody at 1:1000
Secondary
Goat polyclonal to rabbit IgG at 1/50000 dilution
Predicted band size: 37 kDa
Observed band size: 37 kDa



Overlay Peak curve showing HepG2 cells stained with CSB-RA945827A0HU (red line) at 1:100. The cells were fixed in 4% formaldehyde and permeated by 0.2% TritonX-100. Then 10% normal goat serum to block non-specific protein-protein interactions followed by the antibody (1ug/1*10^6cells) for 45min at 4?. The secondary antibody used was FITC-conjugated Goat Anti-rabbit IgG(H+L) at 1:200 dilution for 35min at 4?.Control antibody (green line) was rabbit IgG (1ug/1*10^6cells) used under the same conditions. Acquisition of >10,000 events was performed.

Description

The SRR monoclonal antibody was generated using the synthesized peptide derived from human SRR protein as the immunogen. The gene sequence of the SRR monoclonal antibody was obtained by sequencing the cDNA and cloning it into a plasmid vector, which was then transfected into a suitable host cell. Following that, the resulting SRR recombinant monoclonal antibody was purified using affinity chromatography and its specificity was tested in ELISA, WB, and FC. It can specifically recognize human SRR protein.

Serine racemase (SRR) is an enzyme that catalyzes the conversion of L-serine to D-serine, an important co-agonist of the N-methyl-D-aspartate (NMDA) receptor, which plays a critical role in the regulation of synaptic plasticity, learning, and memory. D-serine acts by binding to the glycine site of the NMDA receptor and enhancing its activity. Serine racemase mainly regulates the levels of D-serine in the brain and modulate the activity of the NMDA receptor.