10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Serine racemase Rabbit pAb

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Catalog # AP54272

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	Q9GZT4
Reactivity	Rat, Human, Mouse
Predicted	Dog, Rabbit, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	36566
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human Serine racemase
Epitope Specificity	1-100/430
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Known to be prominent in bacteria, D amino acids were generally thought to be absent in mammals. D-serine has since been found in high levels in the mammalian brain and in various mammalian fluids. D-serine activates N-methyl-D-aspartate (NMDA) receptors--molecules with important roles in learning, brain growth and brain cell death. Serine racemase is the enzyme catalyzing the formation of D-serine from L-serine. Serine racemase is a member of the family of pyridoxal-5' phosphate-dependent enzymes and is localized to glial cells in rat brain.

Additional Information

Gene ID	63826
Other Names	Serine racemase, 5.1.1.18, D-serine ammonia-lyase, D-serine dehydratase, 4.3.1.18, SRR
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

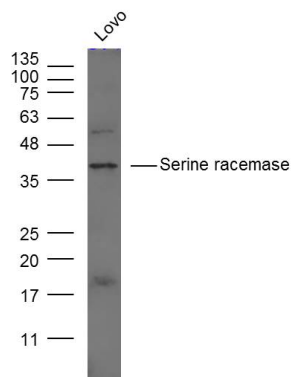
Protein Information

Name	SRR
Function	Pyridoxal-5'-phosphate (PLP)-dependent enzyme that catalyzes the synthesis of D-serine from L-serine (PubMed:20106978, PubMed:23391306, PubMed:29277459). D-serine is a key coagonist with glutamate at NMDA receptors. In addition to racemization, has dehydratase activity towards both L-serine and D-serine, a two-step reaction in which the hydroxyl group of serine is eliminated to produce aminoacrylate (2-aminoprop-2-enoate), and then the aminoacrylate (an unstable intermediate) is deaminated by nonenzymatic hydrolysis to produce pyruvate (By similarity).
Tissue Location	Expressed in the cerebellum, hippocampus, dorsolateral prefrontal cortex, and in motor neurons and glial cells of the lumbar spinal cord (at protein level) (PubMed:17880399, PubMed:24138986). Increased in the dorsolateral prefrontal cortex of schizophrenic patients (at protein level) (PubMed:17880399). Brain: expressed at high levels in hippocampus and corpus callosum, intermediate levels in substantia nigra and caudate, and low levels in amygdala, thalamus, and subthalamic nuclei (PubMed:15193426). Expressed in heart, skeletal muscle, kidney, and liver (PubMed:15193426)

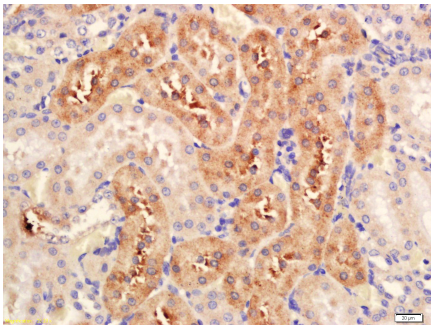
Background

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Images



Sample: lovo (human)cell Lysate at 40 ug
Primary: Anti- Serine racemase (AP54272) at 1/300 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 37 kD
Observed band size: 37 kD



Tissue/cell: rat kidney tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;
Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min;
Incubation:Anti-Serine racemase Polyclonal Antibody, Unconjugated(AP54272) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.