

KD-Validated Anti-Serine Racemase Rabbit Monoclonal Antibody

Rabbit monoclonal antibody
Catalog # AGI1728

Product Information

Application	WB, FC, ICC
Primary Accession	Q9GZT4
Reactivity	Human
Clonality	Monoclonal
Isotype	Rabbit IgG
Clone Names	24GB2345
Calculated MW	36566
Gene Name	SRR
Aliases	SRR; Serine Racemase; ILV1; ISO1; D-Serine Ammonia-Lyase; L-Serine Ammonia-Lyase; D-Serine Dehydratase; L-Serine Dehydratase; EC 5.1.1.18; EC 4.3.1.18; EC 4.3.1.17
Immunogen	A synthesized peptide derived from human Serine racemase

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

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)

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