

## Rabbit Anti-Serine racemase antibody

SL10474R

**Product Name** Serine racemase

**Chinese Name** 丝氨酸消旋酶抗体

**Alias** D serine ammonia lyase; D serine dehydratase; D-serine ammonia-lyase; D-serine dehydratase; ILV1; ISO1; L serine ammonia lyase; L serine dehydratase; L-serine ammonia-lyase; L-serine dehydratase; Serine racemase; srr; SRR\_HUMAN.

**Research Area** Neurobiology Signal transduction Alzheimer's

**Immunogen Species** Rabbit

**Clonality** Polyclonal

**React Species** Human, Mouse, Rat, (predicted: Dog, Cow, Rabbit, Sheep, )

**Applications** WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500 (Paraffin sections need antigen repair)  
not yet tested in other applications.  
optimal dilutions/concentrations should be determined by the end user.

**Theoretical molecular weight** 37kDa

**Cellular localization** The cell membrane

**Form** Liquid

**Concentration** 1mg/ml

**immunogen** KLH conjugated synthetic peptide derived from human Serine racemase: 1-100/430

**Lsotype** IgG

**Purification** affinity purified by Protein A

**Buffer Solution** 1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.

**Storage** Shipped at 4°C. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.

**Attention** This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

**PubMed** [PubMed](#)

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.

**Function:**

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.

**Subunit:**

Homodimer.

**Tissue Specificity:**

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. Expressed in heart, skeletal muscle, kidney and liver.

**Product  
Detail**

**Post-translational modifications:**

S-nitrosylated, leading to decrease the enzyme activity.

**Similarity:**

Belongs to the serine/threonine dehydratase family.

**SWISS:**

Q9GZT4

**Gene ID:**

63826

**Database links:**

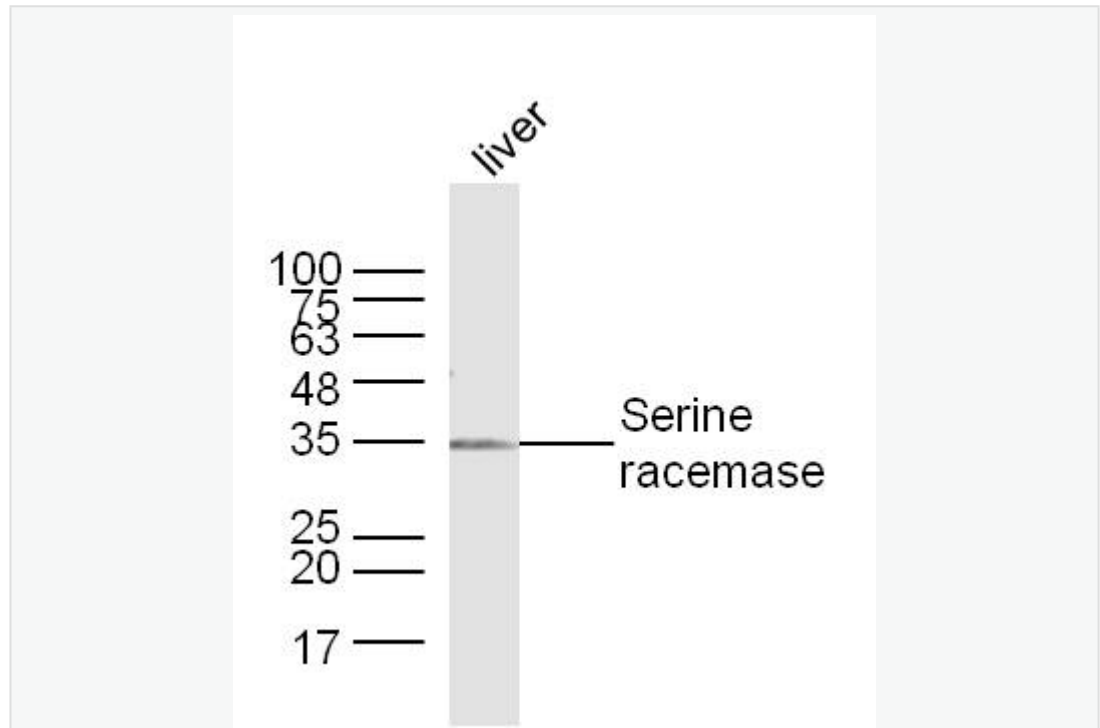
[Entrez Gene: 63826](#) Human

[Omim: 606477](#) Human

[SwissProt: Q9GZT4](#) Human

[Unigene: 461954](#) Human

**Product  
Picture**



Sample:

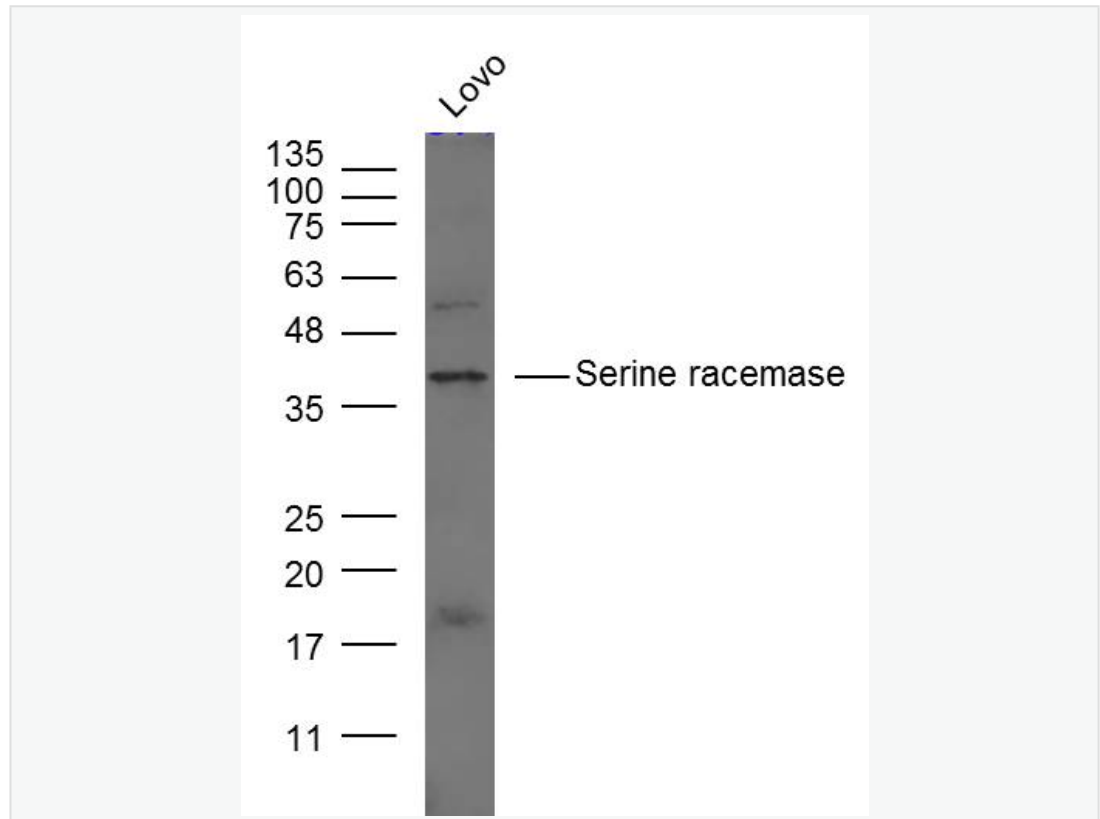
Liver (Mouse) Lysate at 40 ug

Primary: Anti- Serine racemase (SL10474R) at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 37 kD

Observed band size: 37 kD



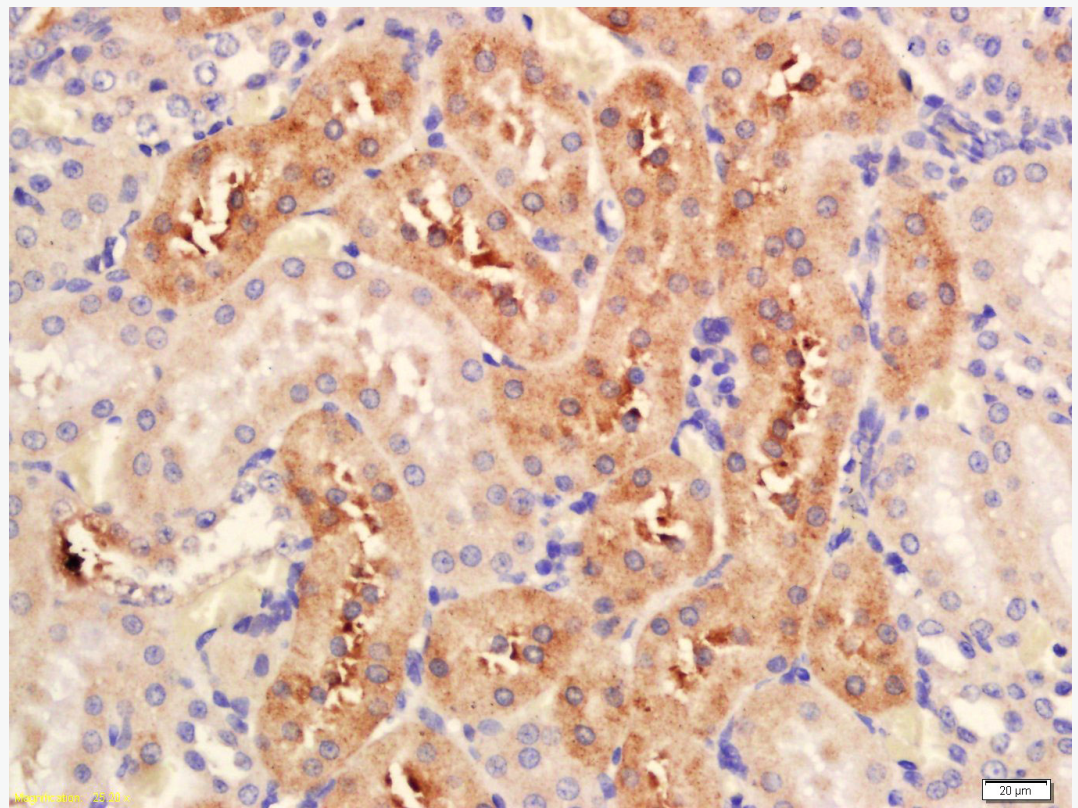
Sample: lovo (human)cell Lysate at 40 ug

Primary: Anti- Serine racemase (SL10474R) 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 ( 1M, 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°C for 20 min;

Incubation:Anti-Serine racemase Polyclonal Antibody, Unconjugated(SL10474R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining