Serine Racemase (D5V9Z) Rabbit mAb

For Research Use Only. Not for Use in Diagnostic Procedures.

<table>
<thead>
<tr>
<th>Applications:</th>
<th>Reaction:</th>
<th>Sensitivity:</th>
<th>MW (kDa):</th>
<th>Source/Isotype:</th>
<th>UniProt ID:</th>
<th>Entrez-Gene Id:</th>
</tr>
</thead>
<tbody>
<tr>
<td>WB, IP</td>
<td>H M R</td>
<td>Endogenous</td>
<td>37</td>
<td>Rabbit IgG</td>
<td>#Q9GZT4</td>
<td>63826</td>
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</tbody>
</table>

**Product Usage Information**

**Application**
- Western Blotting
- Immunoprecipitation

**Dilution**
- Western Blotting: 1:1000
- Immunoprecipitation: 1:50

**Storage**
Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. Do not aliquot the antibody.

**Specificity / Sensitivity**
Serine Racemase (D5V9Z) Rabbit mAb recognizes endogenous levels of total serine racemase protein.

**Source / Purification**
Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Val240 of human serine racemase protein.

**Background**
Serine racemase, also called SRR, is an enzyme that is highly expressed in the brain and converts L-serine to D-serine (1,2). D-serine is a co-agonist of the NMDA receptor. NMDA receptor activation requires the binding of glutamate to its GluN2 subunit and the concomitant binding of either glycine or D-serine to its glycine binding site on the GluN1 subunit (3). Decreased activation of NMDA receptors is a typical feature of impaired synaptic plasticity in age-related memory deficits. Therefore, D-serine availability makes serine racemase an important therapeutic target for memory deficit associated with nonpathological aging (4).

**Background References**

**Species Reactivity**
Species reactivity is determined by testing in at least one approved application (e.g., western blot).

**Western Blot Buffer**
IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

**Applications Key**
- WB: Western Blotting
- IP: Immunoprecipitation

**Cross-Reactivity Key**
- H: human
- M: mouse
- R: rat
- Hm: hamster
- Mk: monkey
- Vir: virus
- Mi: mink
- C: chicken
- Dm: D. melanogaster
- X: Xenopus
- Z: zebrafish
- B: bovine
- Dg: dog
- Pg: pig
- Sc: S. cerevisiae
- Ce: C. elegans
- Hr: horse
- GP: Guinea Pig
- Rab: rabbit
- All: all species expected

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