Recombinant SRR protein (His tag)

Catalog Number	545887
Synonyms	D-serine ammonia-lyase; D-serine dehydratase; L-serine ammonia-lyase; L-serine dehydratase
Species	Human
Expression System	E. coli
Accession	Q9GZT4
Molecular Weight	Predictes a molecular mass of 38.22 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 38 kDa band.

Product Information

Sequence Region	1-340
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>89%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 1-340 aa (Q9GZT4) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant Serine Racemase (SRR) Fragment (1-340) from Homo sapiens, a high-purity protein designed for structural and biochemical studies. This fragment represents a stable and soluble unit of the enzyme, which catalyzes the synthesis of D-serine—a critical coagonist at NMDA receptors—and exhibits dehydratase activity on both L- and D-serine isoforms. Serine racemase (EC 5.1.1.18) is a multifunctional enzyme in humans that plays a pivotal role in neurotransmission by catalyzing the conversion of L-serine to D-serine, a key coagonist with glutamate at NMDA receptors. It also demonstrates dehydratase activity towards both L-serine (EC 4.3.1.17) and D-serine (EC 4.3.1.18), contributing to serine metabolism. The full-length protein's function is well-documented in scientific literature, including its involvement in neurological processes, though subcellular localization details are not specified here. This recombinant fragment (1-340) was selected computationally to ensure stability and solubility, enabling reliable use in research applications such as enzyme kinetics and structural analysis.