

SRR, 1-340aa, Human, His tag, E.coli

Cat.NO.: TP04033

3th Edition

Synonyms:Serine racemase, ILV1, ISO1

Description:SRR, also known as serine racemase, is an enzyme which generates D-serine from L-serine. D-serine acts as a neuronal signaling molecule by activating NMDA receptors in the brain. Mammalian serine racemase is a pyridoxal 5'-phosphate dependent enzyme that catalyzes both the racemization of L-serine to D-serine and also the elimination of water from L-serine, generating pyruvate and ammonia. The enzyme is physiologically stimulated by divalent cations (e.g., magnesium) and is allosterically activated by the magnesium/ATP complex. Recombinant human SRR protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography.

Form:Liquid. 20mM Tris-HCl buffer (pH8.0) containing 20% glycerol, 0.1M NaCl, 1mM DTT

Molecular Weight:39.1 kDa (364aa), confirmed by MALDI-TOF

Sequences:

MGSSHHHHHSSGLVPRGSHMGSHMCAQYCISFADVEKAHINIRDSIHLPVLTSSILNQLTGRNLFFKCELFQKTG
SFKIRGALNAVRSLVPDALERKPKAVVTHSSGNHGQALTYAAKLEGIPAYIVVPQTAPDCKKLAIQAYGASIVYCEPS
DESRENVAKRVTEETEGIMVHPNQEPAVIAGQGTTIALEVLNQVPLVDALVVPVGGGMLAGIAITVKALKPSVKVYA
AEPSNADDCYQSKLKGKLMPLNLYPPETIADGVKSSIGLNTWPIIRDLDVDDIFTVTEDEIKCATQLVWERMKLLIEPTAG
VGVAAVLSQHFQTVSPEVKNICIVLSGGNVDLTSSITWVKQAERPASYQSVSV

Purity:> 95% by HPLC

Concentration:0.5 mg/ml (determined by Bradford assay)

Endotoxin Level:<1.0 EU per 1 ug of protein (determined by LAL method)

Storage:Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.