
Product Data Sheet

Product Name: SRR Human
 Cat. No.: GP22258
 Batch No.: 1

Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	Serine racemase; D-serine ammonia-lyase; D-serine dehydratase; L-serine ammonia-lyase; L-serine dehydratase; SRR; ILV1; ISO1.		
Amino Acid Sequence	MGSSHHHHHH SSGLVPRGSH MGS HMCAQYC ISFADVEKAH INIRDSIHILT PVL TSSILNQ LTGRNLFFKC ELFQKTGSFK IRGALNAVRS LVPDALERKP KAVVTHSSGN HGQALTYAAK LEGIPAYIVV PQTAPDCKKL AIQAYGASIV YCEPSDESRE NVAKRVT EET EGIMVHPNQE PAVIAGQGTI ALEVLNQVPL VDALVVPVGG GGMLAGIAIT VKALKPSVKV YAAEPSNADD CYQSKLKGKL MPNLYPPETI ADGVKSSIGL NTWPIIRDLV DDIFTVTEDE IKCATQLVWE RMKLLIEPTA GVGVA AVL SQ HFQTVSPEVK NICIVLSSGGN VDLTSSITWV KQAERPASYQ SVSV.		
Formulation	The SRR solution (0.5mg/ml) contains 20mM Tris-HCl buffer (pH8.0), 20% glycerol, 0.1M NaCl and 1mM DTT.		

Introduction

Serine racemase (SRR) is an enzyme which generates D-serine from L-serine. D-serine functions as a neuronal signaling molecule by activating NMDA receptors in the brain. Mammalian SRR is a pyridoxal 5'-phosphate dependent enzyme which catalyzes both the racemization of L-serine to D-serine and also the elimination of water from L-serine, producing pyruvate and ammonia. The SRR enzyme is physiologically stimulated by divalent cations (e.g., magnesium) and is allosterically activated by the magnesium/ATP complex.

Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1%

Caution: Product has not been fully validated for medical applications. For research use only.

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HSA or BSA). Avoid multiple freeze-thaw cycles.

Background

SRR Human Recombinant produced in E.coli is a single, non-glycosylated polypeptide chain containing 364 amino acids (1-340) and having a molecular mass of 39.1kDa. SRR is fused to a 24 amino acid His-tag at N-terminus & purified by proprietary chromatographic techniques.

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