Recombinant human SRR protein

Catalog Number: ATGP1369

PRODUCT INFORMATION

Expression system
E.coli

Domain
1-340aa

UniProt No.
Q9GZT4

NCBI Accession No.
NP_068766

Alternative Names
Serine racemase, ILV1, ISO1

PRODUCT SPECIFICATION

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

Concentration
0.5mg/ml (determined by Bradford assay)

Formulation
Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 20% glycerol, 0.1M NaCl, 1mM DTT

Purity
> 85% by SDS-PAGE

Tag
His-Tag

Application
SDS-PAGE

Storage Condition
Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

BACKGROUND

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.

Amino acid Sequence

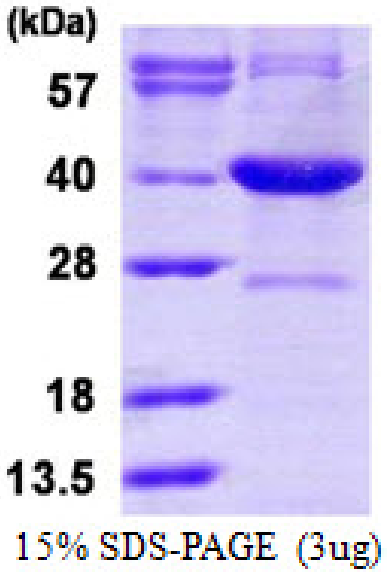
MGSSHHHHHH SSGLVPRGSH MGSHMCAQYC ISFADVEKAH INIRDSIHLT PVLTSSILNQ LTGRNLFFKC ELFQKTGSFK IRGALNAVRS LVPDALERKP KAVVTHSSGN HGQALTYAAK LEGIPAYIVV PQTAPDCKKL AIQAYGASIV YCEPSDESRE NVAKRVTEET EGIMVHPNQE PAVIAGQGTI ALEVLNQVPL VDALVVPVGG GGMLAGIAIT VKALKPSVKV YAAEPSNADD CYQSKLKGKL MPNLYPPETI ADGVKSSIGL NTWPIIRDLV DDIFTVTEDE IKCATQLVWE RMKLLIEPTA GVGVAAVLSQ HFQTVSPEVK NICIVLSGGN VDLTSSITWV KQAERPASYQ SVSV

General References

De Miranda J., et al. (2000) Gene. 256:183-188
Smith M.A., et al. (2010) J. Biol. Chem. 285:12873-12881

DATA

SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.