Recombinant Human Spermine Synthase, His-tagged

Cat. No. SMS-1573H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human SMS protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography techniques.
Species	Human
Source	E.coli
Description	SMS (Spermine synthase) belongs to the spermidine/spermine synthase family. It is an enzyme that converts spermidine into spermine. This enzyme is required for normal viability, growth and fertility involved in polyamine metabolism. Defects in SMS are the cause of Snyder-Robinson syndrome (SRS), also known as X-linked mental retardation Snyder-Robinson type. SRS is characterized by moderate intellectual deficit, hypotonia, an unsteady gait, osteoporosis, kyphoscoliosis and facial asymmetry. Transmission is X-linked recessive.
Form	Liquid. In 20mM Tris-HCl buffer (pH 8.0) containing 1mM DTT, 10% glycerol, 100mM NaCl.
Molecular Weight	43.8 kDa (390aa), confirmed by MALDI-TOF.
Purity	>90% by SDS-PAGE
Concentration	1 mg/ml (determined by Bradford assay)
Sequences of amino	MGSSHHHHHH SSGLVPRGSH MGSHMAAARH STLDFMLGAK ADGETILKGL

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acids	QSIFQEQGMA ESVHTWQDHG YLATYTNKNG SFANLRIYPHGLVLLDLQSY DGDAQGKEEI DSILNKVEER MKELSQDSTG RVKRLPPIVR GGAIDRYWPT ADGRLVEYDI DEVVYDEDSP YQNIKILHSKQFGNILILSG DVNLAESDLA YTRAIMGSGK EDYTGKDVLI LGGGDGGILC EIVKLKPKMV TMVEIDQMVI DGCKKYMRKT CGDVLDNLKGDCYQVLIEDC IPVLKRYAKE GREFDYVIND LTAVPISTSP EEDSTWEFLR LILDLSMKVL KQDGKYFTQG NCVNLTEALS LYEEQLGRLYCPVEFSKEIV CVPSYLELWV FYTVWKKAKP
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.
Pathways	Arginine and proline metabolism, organism-specific biosystem; Cysteine and methionine metabolism, organism-specific biosystem; Glutathione metabolism, organism-specific biosystem; Metabolic pathways, organism-specific biosystem; Metabolism of amino acids and derivatives, organism-specific biosystem; Metabolism of polyamines, organism-specific biosystem; Urea cycle and metabolism of amino groups, organism-specific biosystem; beta-Alanine metabolism, conserved biosystem; spermine biosynthesis, conserved biosystem; superpathway of polyamine biosynthesis II, conserved biosystem

GENE INFORMATION

Gene Name	SMS spermine synthase [Homo sapiens]
Official Symbol	SMS
Synonyms	SMS;spermine synthase; SRS; SpS; MRSR; SPMSY; spermine synthase; OTTHUMP00000023048; OTTHUMP00000023049; spermidineaminopropyltransferase; Snyder-Robinson X-linked mental retardation syndrome

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Gene ID	6611
mRNA Refseq	NM_004595
Protein Refseq	NP_004586
MIM	300105
UniProt ID	P52788
Chromosome Location	Xp22
Function	spermidine synthaseactivity; spermine synthase activity; transferase activity

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