
Product Data Sheet

Product Name: SPR Mouse
 Cat. No.: GP22256
 Batch No.: 1

Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	SDR38C1; SPR; Dystonia; Sepiapterin reductase; mCG_128676.		
Amino Acid Sequence	MGSSHHHHHH SGLVPRGSH MGSMEAGGLG CAVCVLTGAS RGFGRALAPQ LARLLSPGSV MLVSARSESM LRQLKEELGA QQPDLKVVLA AADLGTEAGV QRLLSAVREL PRPEGLQRL LINNAATLGD VSKGFLNVND LAEVNNYWAL NLTSMCLCTS GTLNAFQDSP GLSKTVVNIS SLCALQPYKG WGLYCAGKAA RDMLYQVLAA EEPSVRVLSY APGPLDNDMQ QLARETSKDP ELRSKLQKLK SDGALVDCGT SAQKLLGLLQ KDTFQSGAHV DFYDC.		
Formulation	SPR protein solution (1mg/ml) containing 20mM Tris-HCl buffer (pH8.5), 1mM DTT and 10% glycerol.		

Introduction

Sepiapterin Reductase is an aldo-keto reductase that catalyzes the NADPH-dependent reduction of pteridine derivatives and is essential in the biosynthesis of BH₄. Mutations in Sepiapterin Reductase gene result in DOPA-responsive dystonia due to sepiapterin reductase deficiency defined by the presence of sustained involuntary muscle contractions, often leading to abnormal postures. Sepiapterin reductase is part of the short-chain dehydrogenase/reductase family which reduces exogenous carbonyl compounds as well as phenylpropanedione. Sepiapterin reductase is an important enzyme for the biosynthesis of tetrahydrobiopterin, an necessary cofactor for aromatic amino acid hydrolases together with tyrosine hydroxylase, the rate-limiting enzyme in dopamine synthesis.

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

SPR Mouse Recombinant produced in E.Coli is a single, non-glycosylated polypeptide chain containing 285 amino acids (1-262 a.a) and having a molecular mass of 30.3kDa. SPR is fused to a 23 amino acid His-tag at N-terminus & purified by proprietary chromatographic techniques.

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