

# Recombinant mouse Sepiapterin reductase/SPR protein

Catalog Number: ATGP3652

## PRODUCT INFORMATION

---

### Expression system

E.coli

### Domain

1-262aa

### UniProt No.

Q91XH5

### NCBI Accession No.

NP\_035597

### Alternative Names

Sepiapterin reductase, AA409688, Gm10328

## PRODUCT SPECIFICATION

---

### Molecular Weight

30.3 kDa (285aa) confirmed by MALDI-TOF

### Concentration

1mg/ml (determined by absorbance at 280nm)

### Formulation

Liquid in. 20mM Tris-HCl buffer (pH 8.5) containing 1mM DTT, 10% glycerol

### Purity

> 95% 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

Spr also known as Sepiapterin reductase, belongs to the Short-chain dehydrogenase/reductase (Sdr) family and also reduces various exogenous carbonyl compounds including phenylpropanedione. Spr is an essential enzyme for the biosynthesis of tetrahydrobiopterin, an essential cofactor for aromatic amino acid hydrolases including tyrosine hydroxylase, the rate-limiting enzyme in dopamine synthesis. Defects in Spr cause DOPA-responsive dystonia defined by the presence of sustained involuntary muscle contractions, often leading to abnormal postures. Recombinant mouse Spr protein, fused to His-tag at N-terminus, was expressed in E. coli and purified

# Recombinant mouse Sepiapterin reductase/SPR protein

Catalog Number: ATGP3652

by using conventional chromatography.

## Amino acid Sequence

MGSSHHHHHH SSGLVPRGSH MGSMEAGGLG CAVCVLTGAS RGFGRALAPQ LARLLSPGSV MLVSARSESM  
LRQLKEELGA QQPDLKVVLA AADLGTEAGV QRLLSAVREL PRPEGLQRLI LINNAATLGD VSKGFLNVND LAEVNYYWAL  
NLTSMLCLTS GTLNAFQDSP GLSKTVVNIS SLCALQPYKG WGLYCAGKAA RDMLYQVLAA EEPSVRVLSY APGPLDNDMQ  
QLARETSKDP ELRSKLQKLG SDGALVDCGT SAQKLLGLLQ KDTFQSGAHV DFYDC

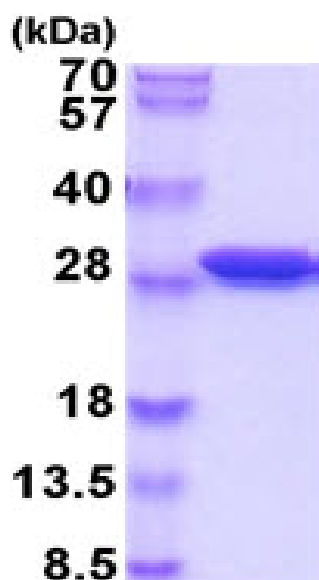
## General References

Tobin JE., et al. (2007). Brain Res. 30  
1139:42-7.

Ohye T., et al. (1998). Biochem Biophys Res Commun. 251(2):597-602.

## DATA

### SDS-PAGE



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

-----  
15% SDS-PAGE (3ug)