

Product information

Sepiapterin reductase, 1-261 aa

Human, His-tagged, Recombinant, *E.coli*

Cat. No. IBATGP0288

Synonyms: SPR

NCBI Accession No.: NP_003115

Description: Sepiapterin reductase (SPR) 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 human SPR protein, fused to His-tag at N-terminus, was expressed in *E.coli* and purified by using conventional chromatography.

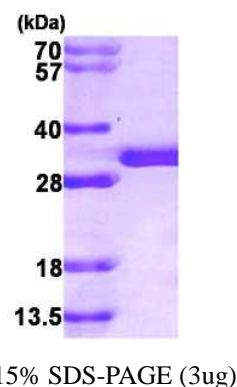
Form: Liquid. In 20 mM Tris-HCl buffer (pH 8.0), 10% glycerol.

Molecular Weight: 30.2 kDa (281aa), confirmed by MALDI-TOF

Purity: > 95% by SDS - PAGE

Concentration: 0.5 mg/ml (determined by Bradford assay)

Endotoxin Level: < 1.0 EU per 1 µg of protein (determined by LAL method)



Sequences of amino acids:

MGSSHHHHH SGLVPRGSH MEGGLGRAVC LLTGASRGFG RTLAPLLASL LSPGSVLVLS ARNDEALRQL EAELGAERSG LRVVRVPADL
 GAEAGLQQLL GALRELPRPK GLQRLLL INN AGSLGDVSKG FVDSLSDSTQV NNYWALNLTS MLCLTSSVLK AFDSPGLNR TVVNISSLCA
 LQPFKGWALY CAGKAARDML FQVLALEEPN VRVLNYAPGP LDTDMQLLAR ETSVDPDMRK GLQELKAKGK LVDCKVSAQK LLSLLEKDEF
 KSGAHVDFYD K

General references:

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

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

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.

For research use only. This product is not intended or approved for human, diagnostics or veterinary use.