

Recombinant Full Length Human QDPR, His-tagged

Cat. No. QDPR-3613H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant human QDPR 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
ProteinLength	1-244 a.a.
Description	QDPR is a member of the short-chain dehydrogenases/reductase(SDR) family of enzymes. Functioning as a homodimer, QDPR plays an important role in the recycling of tetrahydrobiopterin (BH4), an essential cofactor for the hydroxylation of the aromatic amino acids (tryptophan, tyrosine and phenylalanine). More specifically, QDPR catalyzes the regeneration of BH4 from quinonoid dihydrobiopterin (qBH2), the product generated from the hydroxylation reactions. Mutations in the gene encoding QDPR can lead to phenylketonuria II.
Form	Liquid. In 20mM Tris-HCl buffer(pH 8.0) containing 10% glycerol, 2mM DTT.
Molecular Weight	28.2 kDa (267aa), confirmed by MALDI-TOF
Purity	> 90 % by SDS - PAGE
Concentration	1 mg/ml (determined by Bradford assay)

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Sequences of amino acids

MGSSHHHHHH SSGLVPRGSH MGSMAAAAAA GEARRVLVYG GRGALGSRVCV
 QAFRARNWWW ASVDVVENEE ASASIIVKMT DSFTEQADQV TAEVGKLLGE
 EKVDAILCVA GGWAGGNAKS KSLFKNCDLM WKQSIWTSTI SSSLATKHLK
 EGGLETLAGA KAALDGTPGM IGYGMAKGAV HQLCQSLAGK NSGMPPGAAA
 IAVLPVTLDT PMNRKSMPEA DFSSWTPLEF LVETFHDWIT GKNRPSSGSL
 IQVVTTEGRT ELTPAYF

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.

GENE INFORMATION

Gene Name QDPR quinoid dihydropteridine reductase [Homo sapiens]<http://www.ncbi.nlm.nih.gov/sites/entrez>

Official Symbol QDPR

Synonyms QDPR; DHPR; PKU2; SDR33C1; FLJ42391; quinoid dihydropteridine reductase; dihydropteridine reductase; HDHPR; EC 1.5.1.34; OTTHUMP00000158671; OTTHUMP00000217799; OTTHUMP00000217800; OTTHUMP00000217802; OTTHUMP00000217914; OTTHUMP00000217915; 6,7-dihydropteridine reductase; short chain dehydrogenase/reductase family 33C, member 1

Gene ID 5860

mRNA Refseq NM_000320

Protein Refseq NP_000311

MIM 612676

UniProt ID P09417

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Chromosome Location	4p15.31
Function	6,7-dihydropteridine reductase activity; binding; electron carrier activity; oxidoreductase activity

