

# Recombinant human QDPR protein

Catalog Number: ATGP1172

## PRODUCT INFORMATION

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### Expression system

E.coli

### Domain

1-244aa

### UniProt No.

P09417

### NCBI Accession No.

NP\_000311

### Alternative Names

Quinoid dihydropteridine reductase., DHPR, FLJ42391, PKu2, SDR33C1

## PRODUCT SPECIFICATION

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### Molecular Weight

28.2 kDa (267aa) confirmed by MALDI-TOF

### Concentration

1mg/ml (determined by Bradford assay)

### Formulation

Liquid in. Phosphate-Buffered Saline (pH 7.4) containing 10% glycerol

### Purity

> 90% 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

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### 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. Recombinant human QDPR protein, fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional

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chromatography techniques.

## Amino acid Sequence

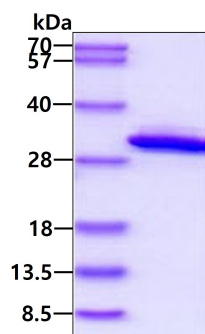
<MGSSHHHHHH SSGLVPRGSH MGS>MAAAAAA GEARRVLVYG GRGALGSRV QAFRARNWWW ASVDVVENEE  
ASASIVKMT DSFTEQADQV TAEVGKLLGE EKVDAILCVA GGWAGGNAKS KSLFKNCDLM WKQSIWTSTI SSSLATKHLK  
EGLLTLAGA KAALDGTPGM IGYGMAKGAV HQLCQSLAGK NSGMPPGAAA IAVLPVTLDT PMNRKSMPEA DFSSWTPLEF  
LVETFHDWIT GKNRPSSGSL IQVVTTEGRT ELTPAYF

## General References

Lye LF., et al. (2002) J Biol Chem. 277(41):38245-53.  
Kalkanoğlu HS., et al. (2001) Prenat Diagn. 21(10):868-70.

## DATA

### SDS-PAGE



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