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## Product Data Sheet

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Product Name: QDPR Human  
 Cat. No.: GP22211  
 Batch No.: 1

### Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	Dihydropteridine reductase; HDHPR; Quinoid dihydropteridine reductase; QDPR; DHPR; PKU2; SDR33C1.		
Amino Acid Sequence	MGSSHHHHHH SSGLVPRGSH MGSMAAAAAA GEARRVLVYG GRGALGSRV QAFRARNWWV ASVDVVENEE ASASIIVKMT DSFTEQADQV TAEVGKLLGE EKVDAILCVA GGWAGGNAKS KSLFKNCDLM WKQSIWTSTI SSSLATKHLK EGLLTLAGA KAALDGTPGM IGYGMAKGAV HQLCQSLAGK NSGMPPGAAA IAVLPVTLDT PMNRKSMPEA DFSSWTPLEF LVETFHDWIT GKNRPSSGSL IQVVTTEGRT ELTPAYF.		
Formulation	QDPR protein solution (1mg/ml) containing 20mM Tris-HCl buffer (pH 8.0), 10% glycerol and 2mM DTT.		

### Introduction

QDPR belongs to the short-chain dehydrogenases/reductase (SDR) family of enzymes. Operating as a homodimer, QDPR has an imperative role in the recycling of tetrahydrobiopterin (BH<sub>4</sub>), a vital cofactor for the hydroxylation of the aromatic amino acids (tryptophan, tyrosine and phenylalanine). More precisely, QDPR catalyzes the regeneration of BH<sub>4</sub> from quinonoid dihydrobiopterin (qBH<sub>2</sub>), the product generated from the hydroxylation reactions. Mutations in the QDPR gene may lead to phenylketonuria II.

### 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% HSA or BSA). Avoid multiple freeze-thaw cycles.

### Background

**Caution: Product has not been fully validated for medical applications. For research use only.**

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QDPR Human Recombinant produced in E.Coli is a single, non-glycosylated polypeptide chain containing 267 amino acids (1-244 a.a.) and having a molecular mass of 28.2kDa. QDPR is fused to a 23 amino acid His-tag at N-terminus & purified by proprietary chromatographic techniques.

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