

Datasheet for ABIN7546688
CYP2C9 Protein (AA 1-490) (His tag)



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Overview

Quantity:	1 mg
Target:	CYP2C9
Protein Characteristics:	AA 1-490
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This CYP2C9 protein is labelled with His tag.

Product Details

Purpose:	Custom-made recombinant CYP2C9 Protein expressed in mammalian cells.
Sequence:	<p>MDSLVLVLC LSCLLLSLW RQSSGRGKLP PGPTPLPVIG NILQIGIKDI SKSLTNLSKV YGPVFTLYFG LKPIVVLHGY EAVKEALIDL GEEFSGRGIF PLAERANRGF GIVFSNGKKW KEIRRFSLMT LRNFGMGKRS IEDRVQEEAR CLVEELRKT ASPCDPTFIL GCAPCNVICS IIFHKRFDYK DQQLNLMEK LNENIKILSS PWIQCNNFS PIIDYFPGTH NKLLKNVAFM KSYILEKVKE HQESMDMNNP QDFIDCFMK MEKEKHNQPS EFTIESLENT AVDLFGAGTE TTSTTLRYAL LLLLKHPEVT AKVQEEIERV IGRNRSPCMQ DRSHMPYTDV WHEVQRYID LLPTSLPHAV TCDIKFRNYL IPKGTILIS LTSVLHDNKE FPNPEMFDPH HFLDEGGNFK KSKYFMPFSA GKRICVGEAL AGMELFLFLT SILQNFNLKS LVDPKNLDTT PTVNGFASVP PFYQLCFIPV Sequence without tag. The proposed Purification-Tag is based on experiences with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.</p>
Specificity:	If you are looking for a specific domain and are interested in a partial protein or a different

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isoform, please contact us regarding an individual offer.

Characteristics:

Key Benefits:

- Made to order protein - from design to production - by highly experienced protein experts.
- Protein expressed in mammalian cells and purified in one-step affinity chromatography
- The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins.
- State-of-the-art algorithm used for plasmid design (Gene synthesis).

This protein is a made-to-order protein and will be made for the first time for your order. Our experts in the lab try to ensure that you receive soluble protein.

If you are not interested in a full length protein, please contact us for individual protein fragments.

The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.

Purity:

> 90 % as determined by Bis-Tris PAGE, anti-tag ELISA, Western Blot and analytical SEC (HPLC)

Grade:

custom-made

Target Details

Target:

CYP2C9

Alternative Name:

CYP2C9 ([CYP2C9 Products](#))

Background:

Cytochrome P450 2C9 (EC 1.14.14.1) ((R)-limonene 6-monooxygenase) (EC 1.14.14.53) ((S)-limonene 6-monooxygenase) (EC 1.14.14.51) ((S)-limonene 7-monooxygenase) (EC 1.14.14.52) (CYP11C9) (Cholesterol 25-hydroxylase) (Cytochrome P-450MP) (Cytochrome P450 MP-4) (Cytochrome P450 MP-8) (Cytochrome P450 PB-1) (S-mephenytoin 4-hydroxylase),FUNCTION: A cytochrome P450 monooxygenase involved in the metabolism of various endogenous substrates, including fatty acids and steroids (PubMed:7574697, PubMed:9866708, PubMed:9435160, PubMed:12865317, PubMed:15766564, PubMed:19965576, PubMed:21576599). Mechanistically, uses molecular oxygen inserting one oxygen atom into a substrate, and reducing the second into a water molecule, with two electrons provided by NADPH via cytochrome P450 reductase (NADPH--hemoprotein reductase) (PubMed:7574697, PubMed:9866708, PubMed:9435160, PubMed:12865317, PubMed:15766564, PubMed:19965576, PubMed:21576599). Catalyzes the epoxidation of double bonds of

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polyunsaturated fatty acids (PUFA) (PubMed:7574697, PubMed:15766564, PubMed:19965576, PubMed:9866708). Catalyzes the hydroxylation of carbon-hydrogen bonds. Metabolizes cholesterol toward 25-hydroxycholesterol, a physiological regulator of cellular cholesterol homeostasis (PubMed:21576599). Exhibits low catalytic activity for the formation of catechol estrogens from 17beta-estradiol (E2) and estrone (E1), namely 2-hydroxy E1 and E2 (PubMed:12865317). Catalyzes bisallylic hydroxylation and hydroxylation with double-bond migration of polyunsaturated fatty acids (PUFA) (PubMed:9866708, PubMed:9435160). Also metabolizes plant monoterpenes such as limonene. Oxygenates (R)- and (S)-limonene to produce carveol and perillyl alcohol (PubMed:11950794). Contributes to the wide pharmacokinetics variability of the metabolism of drugs such as S-warfarin, diclofenac, phenytoin, tolbutamide and losartan (PubMed:25994031). {ECO:0000269|PubMed:11950794, ECO:0000269|PubMed:12865317, ECO:0000269|PubMed:15766564, ECO:0000269|PubMed:19965576, ECO:0000269|PubMed:21576599, ECO:0000269|PubMed:25994031, ECO:0000269|PubMed:7574697, ECO:0000269|PubMed:9435160, ECO:0000269|PubMed:9866708}.

Molecular Weight: 55.6 kDa

UniProt: [P11712](#)

Application Details

Application Notes: We expect the protein to work for functional studies. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.

Restrictions: For Research Use only

Handling

Format: Liquid

Buffer: The buffer composition is at the discretion of the manufacturer.

Handling Advice: Avoid repeated freeze-thaw cycles.

Storage: -80 °C

Storage Comment: Store at -80°C.

Expiry Date: 12 months