

Datasheet for ABIN7546671
CYP2D6 Protein (AA 1-497) (His tag)



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Overview

Quantity:	1 mg
Target:	CYP2D6
Protein Characteristics:	AA 1-497
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This CYP2D6 protein is labelled with His tag.

Product Details

Purpose:	Custom-made recombinant CYP2D6 Protein expressed in mammalian cells.
Sequence:	<p>MGLEALVPLA VIVAIFLLLVDLMHRRQRWA ARYPPGPLPL PGLGNLLHVD FQNTPYCFDQ LRRRFGDVFS LQLAWTPVWV LNGLAAVREA LVTHGEDTAD RPPVPITQIL GFGPRSQGVF LARYGPAWRE QRRFSVSTLR NLGLGKKSLE QWVTEEAACL CAAFANHSGR PFRPNGLLDK AVSNVIASLT CGRRFEYDDP RFLRLDLAQ EGLKEESGFL REVLNAVPLV LHIPALAGKV LRFQKAFLTQ LDELLTEHRM TWDPAQPPRD LTEAFLAEME KAKGNPESSF NDENLRIVVA DLFSAGMVTT STTLAWGLLL MILHPDVQRR VQVEIDDVIG QVRRPEMGDQ AHMPYTTAVI HEVQRFGDIV PLGVTHMTSR DIEVQGFRIK KGTTLITNLS SVLKDEAVWE KPFRFHPEHF LDAQGHFVKP EAFLPFSAGR RACLGEPLAR MELFLFFTSV LQHFSSVPT GQPRPSHHGV FAFLVSPSPY ELCAVPR 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

Product Details

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:

CYP2D6

Alternative Name:

CYP2D6 ([CYP2D6 Products](#))

Background:

Cytochrome P450 2D6 (EC 1.14.14.-) (CYP11D6) (Cholesterol 25-hydroxylase) (Cytochrome P450-DB1) (Debrisoquine 4-hydroxylase),FUNCTION: A cytochrome P450 monooxygenase involved in the metabolism of fatty acids, steroids and retinoids (PubMed:18698000, PubMed:19965576, PubMed:20972997, PubMed:21289075, 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:18698000, PubMed:19965576, PubMed:20972997, PubMed:21289075, PubMed:21576599). Catalyzes the epoxidation of double bonds of polyunsaturated fatty acids (PUFA) (PubMed:19965576, PubMed:20972997). Metabolizes endocannabinoid arachidonylethanolamide (anandamide) to 20-hydroxyeicosatetraenoic acid ethanolamide (20-HETE-EA) and 8,9-, 11,12-, and 14,15- epoxyeicosatrienoic acid ethanolamides (EpETrE-EAs), potentially modulating endocannabinoid

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system signaling (PubMed:18698000, PubMed:21289075). Catalyzes the hydroxylation of carbon-hydrogen bonds. Metabolizes cholesterol toward 25-hydroxycholesterol, a physiological regulator of cellular cholesterol homeostasis (PubMed:21576599). Catalyzes the oxidative transformations of all-trans retinol to all-trans retinal, a precursor for the active form all-trans-retinoic acid (PubMed:10681376). Also involved in the oxidative metabolism of drugs such as antiarrhythmics, adrenoceptor antagonists, and tricyclic antidepressants.

{ECO:0000269|PubMed:10681376, ECO:0000269|PubMed:16352597, ECO:0000269|PubMed:18698000, ECO:0000269|PubMed:19965576, ECO:0000269|PubMed:20972997, ECO:0000269|PubMed:21289075, ECO:0000269|PubMed:21576599}.

Molecular Weight: 55.8 kDa

UniProt: [P10635](#)

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