Datasheet for ABIN7553531

CYP4F11 Protein (AA 1-524) (His tag)

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Overview

Quantity:	1 mg
Target:	CYP4F11
Protein Characteristics:	AA 1-524
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This CYP4F11 protein is labelled with His tag.

Product Details

Purpose:	Custom-made recombinant CYP4F11 Protein expressed in mammalian cells.
Sequence:	MPQLSLSWLG LGPVAASPWL LLLLVGGSWL LARVLAWTYT FYDNCRRLQC FPQPPKQNWF WGHQGLVTPT EEGMKTLTQL VTTYPQGFKL WLGPTFPLLI LCHPDIIRPI TSASAAVAPK DMIFYGFLKP WLGDGLLLSG GDKWSRHRRM LTPAFHFNIL KPYMKIFNKS VNIMHDKWQR LASEGSARLD MFEHISLMTL DSLQKCVFSF ESNCQEKPSE YIAAILELSA FVEKRNQQIL LHTDFLYYLT PDGQRFRRAC HLVHDFTDAV IQERRCTLPT QGIDDFLKNK AKSKTLDFID VLLLSKDEDG KELSDEDIRA EADTFMFEGH DTTASGLSWV LYHLAKHPEY QEQCRQEVQE LLKDREPIEI EWDDLAQLPF LTMCIKESLR LHPPVPVISR CCTQDFVLPD GRVIPKGIVC LINIIGIHYN PTVWPDPEVY DPFRFDQENI KERSPLAFIP FSAGPRNCIG QAFAMAEMKV VLALTLLHFR ILPTHTEPRR KPELILRAEG GLWLRVEPLG ANSQ **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.**

Product Details

Specificity:	If you are looking for a specific domain and are interested in a partial protein or a different 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:	CYP4F11
Alternative Name:	CYP4F11 (CYP4F11 Products)
Background:	Cytochrome P450 4F11 (CYPIVF11) (EC 1.14.14.1) (3-hydroxy fatty acids omega-hydroxylase CYP4F11) (Docosahexaenoic acid omega-hydroxylase) (EC 1.14.14.79) (Long-chain fatty acid omega-monooxygenase) (EC 1.14.14.80) (Phylloquinone omega-hydroxylase CYP4F11) (EC 1.14.14.78),FUNCTION: A cytochrome P450 monooxygenase involved in the metabolism of various endogenous substrates, including fatty acids and their oxygenated derivatives (oxylipins) (PubMed:24138531, PubMed:15364545, PubMed:18065749). 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 (CPR, NADPH-ferrihemoprotein reductase) (PubMed:15364545, PubMed:18065749, PubMed:24138531). Catalyzes with high efficiency the oxidation of the terminal carbon (omega-oxidation) of 3-hydroxy fatty acids, such as 3-hydroxyhexadecanoic and 3-

Target Details

	hydroxyoctadecanoic acids, likely participating in the biosynthesis of long-chain 3-hydroxydicarboxylic acids (PubMed:18065749, PubMed:19932081). Omega-hydroxylates and inactivates phylloquinone (vitamin K1), and menaquinone-4 (MK-4, a form of vitamin K2), both acting as cofactors in blood coagulation (PubMed:24138531). Metabolizes with low efficiciency fatty acids, including (5Z,8Z,11Z,14Z)-eicosatetraenoic acid (arachidonate) and its oxygenated metabolite 8-hydroxyeicosatetraenoic acid (8-HETE) (PubMed:15364545, PubMed:19932081). Catalyzes N- and O-demethylation of drugs such as erythromycin, benzphetamine, ethylmorphine, chlorpromazine, imipramine and verapamil (PubMed:15364545). Catalyzes the oxidation of dialkylresorcinol 2 (PubMed:36565673). {ECO:0000269|PubMed:15364545, ECO:0000269|PubMed:18065749, ECO:0000269|PubMed:19932081, ECO:0000269|PubMed:24138531, ECO:0000269|PubMed:36565673}.
Molecular Weight:	60.1 kDa
UniProt:	Q9HBI6
Pathways:	Monocarboxylic Acid Catabolic Process

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