Datasheet for ABIN3091968

CYP4F2 Protein (AA 5-520) (His tag)

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1 Image

Overview

Quantity:	1 mg
Target:	CYP4F2
Protein Characteristics:	AA 5-520
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This CYP4F2 protein is labelled with His tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB), Crystallization (Crys), ELISA

Product Details

Sequence:	SLSWLGLWPV AASPWLLLLL VGASWLLAHV LAWTYAFYDN CRRLRCFPQP PRRNWFWGHQ GMVNPTEEGM RVLTQLVATY PQGFKVWMGP ISPLLSLCHP DIIRSVINAS AAIAPKDKFF YSFLEPWLGD GLLLSAGDKW SRHRRMLTPA FHFNILKPYM KIFNESVNIM HAKWQLLASE GSACLDMFEH ISLMTLDSLQ KCVFSFDSHC QEKPSEYIAA ILELSALVSK RHHEILLHID FLYYLTPDGQ RFRRACRLVH DFTDAVIQER RRTLPSQGVD DFLQAKAKSK TLDFIDVLLL SKDEDGKKLS DEDIRAEADT FMFEGHDTTA SGLSWVLYHL AKHPEYQERC RQEVQELLKD REPKEIEWDD LAHLPFLTMC MKESLRLHPP VPVISRHVTQ DIVLPDGRVI PKGIICLISV FGTHHNPAVW PDPEVYDPFR FDPENIKERS PLAFIPFSAG PRNCIGQTFA MAEMKVVLAL TLLRFRVLPD HTEPRRKPEL VLRAEGGLWL RVEPLS **Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.**

Product Details

Characteristics:	• Made in Germany - from design to production - by highly experienced protein experts. • Human CYP4F2 Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade. • 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 will ensure that you receive a correctly folded protein. 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. In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization). When you order this made-to-order protein you will only pay upon receival of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered. The concentration of our recombinant proteins is measured using the absorbance at 280nm. The protein's absorbance will be measured in several dilutions and is measured against its specific reference buffer. The concentration of the protein is calculated using its specific absorption coefficient. We use the Expasy's protparam tool to determine the absorption coefficient of each protein.
Purification:	Two step purification of proteins expressed in baculovirus infected SF9 insect cells: 1. In a first purification step, the protein is purified from the cleared cell lysate using three different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. Eluate fractions are analyzed by SDS-PAGE. 2. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatography. Eluate fractions are analyzed by SDS-PAGE and Western blot.
Purity:	>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Sterility:	0.22 µm filtered
Endotoxin Level:	Protein is endotoxin free.
Grade:	Crystallography grade

Target Details

Target:	CYP4F2
Alternative Name:	CYP4F2 (CYP4F2 Products)
Background:	Omega-hydroxylase that oxidizes a variety of structurally unrelated compounds, including steroids, fatty acids and xenobiotics. Plays a key role in vitamin K catabolism by mediating omega-hydroxylation of vitamin K1 (phylloquinone), and menaquinone-4 (MK-4), a form of vitamin K2. Hydroxylation of phylloquinone and MK-4 probably regulates blood coagulation (PubMed:19297519, PubMed:24138531). Also shows arachidonic acid omega-hydroxylase activity in kidney, by mediating conversion of arachidonic acid to 20-hydroxyeicosatetraenoic acid (20-HETE), possibly influencing blood pressure control (PubMed:10660572, PubMed:17341693, PubMed:18574070). Also acts as a leukotriene-B(4) omega-hydroxylase by mediating conversion of leukotriene-B(4) (LTB4) to its omega-hydroxylated metabolite 20-hydroxyleukotriene-B(4) (20-OH LTB4) (PubMed:8026587, PubMed:9799565). {ECO:0000269|PubMed:10660572, ECO:0000269|PubMed:17341693, ECO:0000269|PubMed:18574070, ECO:0000269|PubMed:19297519, ECO:0000269|PubMed:24138531, ECO:0000269|PubMed:8026587, ECO:0000269|PubMed:9799565}.
Molecular Weight:	60.3 kDa Including tag.
UniProt:	P78329
Pathways:	Monocarboxylic Acid Catabolic Process

Application Details

Application Notes:	In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a gurantee though.
Comment:	In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible options with you in detail to assure that you receive your protein of interest.
Restrictions:	For Research Use only

Handling

Format:	Liquid

Handling

Buffer:	100 mM NaCL, 20 mM Hepes, 10% glycerol. pH value 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:	Unlimited (if stored properly)

Images

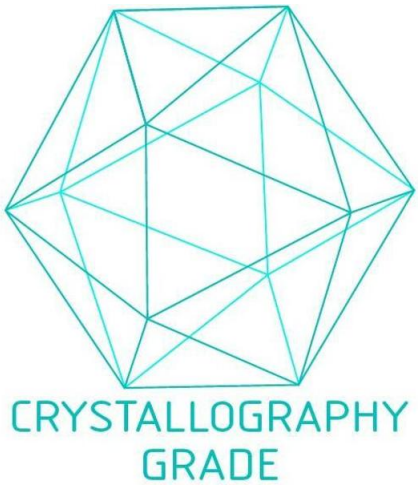

Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process