

Datasheet for ABIN3078189

CYP4F22 Protein (AA 1-531) (Strep Tag)[Go to Product page](#)**1** Image

Overview

Quantity:	1 mg
Target:	CYP4F22
Protein Characteristics:	AA 1-531
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This CYP4F22 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence: MLPITDRLLH LLGLEKTAFR IYAVSTLLLF LLFFLFRLLL RFLRLCRSFY ITCRRLRCFP
QPPRRNWLLG HLGMYLPNEA GLQDEKKVLD NMHHVLLVWM GPVLPLLVLV HPDYIKPLLG
ASAAIAPKDD LFYGFLKPWL GDGLLSKGD KWSRHRRLT PAFHFDILKP YMKIFNQSAD
IMHAKWRHLA EGSAVSLDMF EHISLMTLDS LQKCVFSYNS NCQEKMSDYI SAIIELSALS
VRRQYRLHHY LDFIYYRSAD GRRFRQACDM VHHFTTEVIQ ERRRALRQQG AEAWLKAKQG
KTLDFIDVLL LARDEDGKEL SDEDIRAEAD TFMFEGHDTT SSGISWMLFN LAKYPEYQEK
CREEIQEVMK GRELEELEWD DLTQLPFTTM CIKESLRQYP PVTLVSRQCT EDIKLPDGRI
IPKGIICLVS IYGTHHNPTV WPDSKVYNPY RFDPDNPQQR SPLAYVPFSA GPRNCIGQSF
AMAE LRVVVA LTLLRFRLSV DRTRKVRKPK ELILRTENGL WLKVEPLPPR A

Sequence without tag. The proposed Strep-Tag is based on experience s 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.

Characteristics:

Key Benefits:

- Made in Germany - from design to production - by highly experienced protein experts.
- Protein expressed with ALiCE® and purified by multi-step, protein-specific process to ensure correct folding and modification.
- These proteins are normally active (enzymatically functional) as our customers have reported (not tested by us and not guaranteed).
- 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.

Expression System:

- ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from *Nicotiana tabacum* c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.
- During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!

Concentration:

- 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.
- We use the ExPASy's ProtParam tool to determine the absorption coefficient of each protein.

Purification:

Two step purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®):

1. In a first purification step, the protein is purified from the cleared cell lysate using StrepTag capture material. 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

Product Details

Western blot.

Purity:	>80 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Endotoxin Level:	Low Endotoxin less than 1 EU/mg (< 0.1 ng/mg)
Grade:	Crystallography grade

Target Details

Target:	CYP4F22
Alternative Name:	CYP4F22 (CYP4F22 Products)
Background:	Ultra-long-chain fatty acid omega-hydroxylase (EC 1.14.14.177) (Cytochrome P450 4F22),FUNCTION: A cytochrome P450 monooxygenase involved in epidermal ceramide biosynthesis. Hydroxylates the terminal carbon (omega-hydroxylation) of ultra-long-chain fatty acyls (C28-C36) prior to ceramide synthesis (PubMed:26056268). Contributes to the synthesis of three classes of omega-hydroxy-ultra-long chain fatty acylceramides having sphingosine, 6-hydroxysphingosine and phytosphingosine bases, all major lipid components that underlie the permeability barrier of the stratum corneum (PubMed:26056268). 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:26056268). {ECO:0000269 PubMed:26056268}.
Molecular Weight:	62.0 kDa
UniProt:	Q6NT55

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 guarantee though.
Comment:	<p>ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from <i>Nicotiana tabacum</i> c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.</p> <p>During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional</p>

Application Details

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Restrictions: For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer. If you have a special request, please contact us.
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