

Datasheet for ABIN7546690  
**CYP46A1 Protein (AA 1-500) (His tag)**



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## Overview

Quantity:	1 mg
Target:	CYP46A1
Protein Characteristics:	AA 1-500
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This CYP46A1 protein is labelled with His tag.

## Product Details

Purpose:	Custom-made recombinant CYP46A1 Protein expressed in mammalian cells.
Sequence:	<p>MSPGLLLLGS AVLLAFGLCC TFVHRARSRY EHIPGPPRPS FLLGHLPCFW KKDEVGGRVL QDVFLDWAKK YGPVVRVNVF HKTSVIVTSP ESVKKFLMST KYNKDSKMYR ALQTVFGERL FGQGLVSECN YERWHKQRRV IDLAFSRSSL VSLMETFNEK AEQLVEILEA KADGQTPVSM QDMLTYTAMD ILAKAAFGME TSMLLGAQKP LSQAVKLMLE GITASRNTLA KFLPGKRKQL REVRESIRFL RQVGRDWVQR RREALKRGEE VPADILTQIL KAEEGAQDDE GLLDNFVTFE IAGHETSANH LAFTVMELSR QPEIVARLQA EVDEVIGSKR YLDFEDLGR LQYLSQVLKES LRLYPPAWGT FRLLLEETLI DGVRVPGNTP LLFSTYVMGR MDTYFEDPLT FNPDRFGPGA PKPRFTYFPF SLGHRSCIGQ QFAQMEVKVV MAKLLQRLEF RLVPGQRFGL QEQATLKPLD PVLCTLRPRG WQPAPPPPPC <b>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.</b></p>
Specificity:	If you are looking for a specific domain and are interested in a partial protein or a different

## Product Details

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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

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### Target:

CYP46A1

### Alternative Name:

CYP46A1 ([CYP46A1 Products](#))

### Background:

Cholesterol 24-hydroxylase (CH24H) (EC 1.14.14.25) (Cholesterol 24-monooxygenase) (Cholesterol 24S-hydroxylase) (Cytochrome P450 46A1),FUNCTION: P450 monooxygenase that plays a major role in cholesterol homeostasis in the brain. Primarily catalyzes the hydroxylation (with S stereochemistry) at C-24 of cholesterol side chain, triggering cholesterol diffusion out of neurons and its further degradation (PubMed:10377398, PubMed:14640697, PubMed:25017465, PubMed:18621681). By promoting constant cholesterol elimination in neurons, may activate the mevalonate pathway and coordinate the synthesis of new cholesterol and nonsterol isoprenoids involved in synaptic activity and learning (By similarity). Further hydroxylates cholesterol derivatives and hormone steroids on both the ring and side chain of these molecules, converting them into active oxysterols involved in lipid signaling and biosynthesis (PubMed:12077124, PubMed:14640697, PubMed:28190002). Acts as an epoxidase converting cholesta-5,24-dien-3beta-ol/desmosterol into (24S),25-epoxycholesterol,

## Target Details

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an abundant lipid ligand of nuclear NR1H2 and NR1H3 receptors shown to promote neurogenesis in developing brain (PubMed:25017465). May also catalyze the oxidative metabolism of xenobiotics, such as clotrimazole (PubMed:20667828).  
{ECO:0000250|UniProtKB:Q9WVK8, ECO:0000269|PubMed:10377398, ECO:0000269|PubMed:12077124, ECO:0000269|PubMed:14640697, ECO:0000269|PubMed:18621681, ECO:0000269|PubMed:20667828, ECO:0000269|PubMed:25017465, ECO:0000269|PubMed:28190002}.

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Molecular Weight: 56.8 kDa

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UniProt: [Q9Y6A2](#)

## Application Details

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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.

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Restrictions: For Research Use only

## Handling

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Format: Liquid

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

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Handling Advice: Avoid repeated freeze-thaw cycles.

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Storage: -80 °C

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Storage Comment: Store at -80°C.

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Expiry Date: 12 months