

# **Product datasheet for PH310170**

#### OriGene Technologies, Inc.

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## Cytochrome P450 3A4 (CYP3A4) (NM\_017460) Human Mass Spec Standard

**Product data:** 

**Product Type:** Mass Spec Standards

**Description:** CYP3A4 MS Standard C13 and N15-labeled recombinant protein (NP\_059488)

Species: Human
Expression Host: HEK293

Expression cDNA Clone

or AA Sequence:

RC210170

Predicted MW: 57.2 kDa

**Protein Sequence:** >RC210170 representing NM\_017460

Red=Cloning site Green=Tags(s)

MALIPDLAMETWLLLAVSLVLLYLYGTHSHGLFKKLGIPGPTPLPFLGNILSYHKGFCMFDMECHKKYGK VWGFYDGQQPVLAITDPDMIKTVLVKECYSVFTNRRPFGPVGFMKSAISIAEDEEWKRLRSLLSPTFTSG KLKEMVPIIAQYGDVLVRNLRREAETGKPVTLKDVFGAYSMDVITSTSFGVNIDSLNNPQDPFVENTKKL LRFDFLDPFFLSITVFPFLIPILEVLNICVFPREVTNFLRKSVKRMKESRLEDTQKHRVDFLQLMIDSQN SKETESHKALSDLELVAQSIIFIFAGYETTSSVLSFIMYELATHPDVQQKLQEEIDAVLPNKAPPTYDTV LQMEYLDMVVNETLRLFPIAMRLERVCKKDVEINGMFIPKGVVVMIPSYALHRDPKYWTEPEKFLPERFS KKNKDNIDPYIYTPFGSGPRNCIGMRFALMNMKLALIRVLQNFSFKPCKETQIPLKLSLGGLLQPEKPVV

LKVESRDGTVSGA

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Tag: C-Myc/DDK

**Purity:** > 80% as determined by SDS-PAGE and Coomassie blue staining

**Concentration:** >0.05 μg/μL as determined by microplate BCA method

Labeling Method: Labeled with [U- 13C6, 15N4]-L-Arginine and [U- 13C6, 15N2]-L-Lysine

**Buffer:** 25 mM Tris-HCl, 100 mM glycine, pH 7.3

**Storage:** Store at -80°C. Avoid repeated freeze-thaw cycles.

**Stability:** Stable for 3 months from receipt of products under proper storage and handling conditions.

**RefSeq:** NP 059488

RefSeq Size: 2768 RefSeq ORF: 1509





#### Cytochrome P450 3A4 (CYP3A4) (NM\_017460) Human Mass Spec Standard – PH310170

Synonyms: CP33; CP34; CYP3A; CYP3A3; CYPIIIA3; CYPIIIA4; HLP; NF-25; P450C3; P450PCN1; VDDR3

**Locus ID:** 1576

**UniProt ID:** <u>P08684</u>, <u>Q6GRK0</u>

Cytogenetics: 7q22.1

Summary: This gene encodes a member of the cytochrome P450 superfamily of enzymes. The

cytochrome P450 proteins are monooxygenases that catalyze many reactions involved in drug metabolism and synthesis of cholesterol, steroids and other lipids. This protein localizes to the endoplasmic reticulum and its expression is induced by glucocorticoids and some pharmacological agents. This enzyme is involved in the metabolism of approximately half the

drugs in use today, including acetaminophen, codeine, cyclosporin A, diazepam,

erythromycin, and chloroquine. The enzyme also metabolizes some steroids and carcinogens. This gene is part of a cluster of cytochrome P450 genes on chromosome 7q21.1. Previously another CYP3A gene, CYP3A3, was thought to exist; however, it is now thought that this sequence represents a transcript variant of CYP3A4. Alternatively spliced transcript variants

encoding different isoforms have been identified. [provided by RefSeq, Aug 2020]

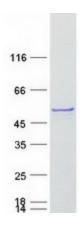
Protein Families: Druggable Genome, ES Cell Differentiation/IPS, P450, Transmembrane

**Protein Pathways:** Drug metabolism - cytochrome P450, Drug metabolism - other enzymes, Linoleic acid

metabolism, Metabolic pathways, Metabolism of xenobiotics by cytochrome P450, Retinol

metabolism

## **Product images:**



Coomassie blue staining of purified CYP3A4 protein (Cat# [TP310170]). The protein was produced from HEK293T cells transfected with CYP3A4 cDNA clone (Cat# [RC210170]) using MegaTran 2.0 (Cat# [TT210002]).