

## Product datasheet for PH305760

### CYP1A1 (NM\_000499) Human Mass Spec Standard

#### Product data:

Product Type:	Mass Spec Standards
Description:	CYP1A1 MS Standard C13 and N15-labeled recombinant protein (NP_000490)
Species:	Human
Expression Host:	HEK293
Expression cDNA Clone or AA Sequence:	RC205760
Predicted MW:	58.2 kDa
Protein Sequence:	>RC205760 protein sequence Red=Cloning site Green=Tags(s)

MLFPISMSATEFLLASVIFCLVFWVIRASRPQVPKGLKNPPGPWGWPLIGHMLTLGKNPHLALSRMSQQY  
GDVLQIRIGSTPVVVL SGLDTIRQALVRQGDDFKGRPDLYTFTLISNGQSMSFSPDSGPVWAARRRLAQN  
GLKSFSIASDPASSTSCYLEEHVSKEAEVLISTLQELMAGPGHFNPYRYVVSVTNVICAI CFGRRYDHN  
HQELLSLVNLNNNFGEVVGSGNPADFIPILRYLPNPSLNAFKDLNEKFYSFMQKMKVKEHYKTFEKGHIRD  
ITDSLIEHCQEKQLDENANVQLSDEKIINIVLDLFGAGFDVTTAISWSLMYLMNPRVQRKIQEELDTV  
IGRRRRPRLSDRSHLPYMEAFILETFRHSSFVPFTIPHSTTRDTSKGFYIPKGRCVFVNQWQINHDQKL  
WVNPSEFLPERFLTPDGAIDKVLSEKVIIFGMGKRKCIGETIARWEVFLFLAILLQRVEFSVPLGVKVD  
MPIYGLTMKHACCEHFQMLRS

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

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- <sup>13</sup> C <sub>6</sub> , <sup>15</sup> N <sub>4</sub> ]-L-Arginine and [U- <sup>13</sup> C <sub>6</sub> , <sup>15</sup> N <sub>2</sub> ]-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:	<a href="#">NP_000490</a>
RefSeq Size:	2608
RefSeq ORF:	1536



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**Synonyms:** AHH; AHRR; CP11; CYP1; CYP1A1; P1-450; P450-C; P450DX

**Locus ID:** 1543

**UniProt ID:** [P04798](#), [A0N0X8](#)

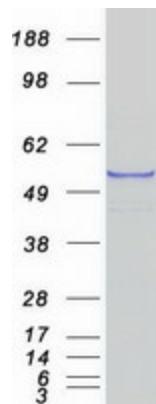
**Cytogenetics:** 15q24.1

**Summary:** This gene, CYP1A1, encodes a member of the cytochrome P450 superfamily of enzymes. The cytochrome P450 proteins are monooxygenases which 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 some polycyclic aromatic hydrocarbons (PAHs), some of which are found in cigarette smoke. The enzyme's endogenous substrate is unknown; however, it is able to metabolize some PAHs to carcinogenic intermediates. The gene has been associated with lung cancer risk. A related family member, CYP1A2, is located approximately 25 kb away from CYP1A1 on chromosome 15. Alternative splicing results in multiple transcript variants encoding distinct isoforms. [provided by RefSeq, Jan 2016]

**Protein Families:** Druggable Genome, P450, Transmembrane

**Protein Pathways:** Metabolism of xenobiotics by cytochrome P450, Retinol metabolism, Tryptophan metabolism

### Product images:



Coomassie blue staining of purified CYP1A1 protein (Cat# [TP305760]). The protein was produced from HEK293T cells transfected with CYP1A1 cDNA clone (Cat# [RC205760]) using MegaTran 2.0 (Cat# [TT210002]).