

Recombinant Human CYP1A1 Protein, Myc/DDK-tagged, C13 and N15-labeled

Cat. No. CYP1A1-2195H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	CYP1A1 MS Standard C13 and N15-labeled recombinant protein (NP_000490) with a C-terminal MYC/DDK tag, was expressed in HEK293 cells.
Species	Human
Source	HEK293
Description	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.
Molecular Mass	58.2 kDa
AA Sequence	MLFPISMSATEFLLASVIFCLVFWVIRASRPQVPKGLKNPPGPWGWPLIGHMLTLGK NPHLALSRMSQQYGDVLQIRIGSTPVVVL SGLDTIRQALVRQGDDFKGRPDLYTFTLI SNGQSMSFSPDSGPVWAARRRLAQNGLKSFSIASDPASSTSCYLEEHVSKEAEVLI

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STLQELMAGPGHFNPYRYVVSVTNVICAICFGRRYDHNHQELSLVNLNNNFGEVV
 GSGNPADFIPLRYLPNPSLNAFKDLNEKFYSFMQKMKVKEHYKTFEKGHIRDITDSLIE
 HCQEKQLDENANVQLSDEKIINIVLDLFGAGFDTVTTAISWSLMYLMNPRVQRKIQE
 ELDTVIGRSRRPRLSDRSHLPYMEAFILETRHSSFPFTIPHSTTRDTSLKGFYIPKG
 RCVFVNQWQINHDQKLWVNPSEFLPERFLTPDGAIDKVLSEKVIIFGMGKRKCIGETI
 ARWEVFLFLAILLQRVEFSVPLGVKVDMTPIYGLTMKHACCEHFQMQLRSTRTRPLE
 QKLISEEDLAANDILDYKDDDDKV

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

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

Storage Store at -80 centigrade. Avoid repeated freeze-thaw cycles.

Concentration 50 µg/mL as determined by BCA

Storage Buffer 100 mM glycine, 25 mM Tris-HCl, pH 7.3.

GENE INFORMATION

Gene Name CYP1A1 cytochrome P450 family 1 subfamily A member 1 [Homo sapiens (human)]

Official Symbol CYP1A1

Synonyms CYP1A1; cytochrome P450, family 1, subfamily A, polypeptide 1; CYP1, cytochrome P450, subfamily I (aromatic compound inducible), polypeptide 1; cytochrome P450 1A1; CP11; P1 450; P450 C; P450DX; CYPIA1; cytochrome P450-C; cytochrome P450-P1; cytochrome P450 form 6; xenobiotic monooxygenase; aryl hydrocarbon hydroxylase; flavoprotein-linked monooxygenase; cytochrome P1-450, dioxin-inducible; cytochrome P450, subfamily I (aromatic compound-inducible), polypeptide

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1; AHH; AHRR; CYP1; P1-450; P450-C;

Gene ID 1543

mRNA Refseq NM_000499

Protein Refseq NP_000490

MIM 108330

UniProt ID P04798

SDS-PAGE



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