

Recombinant Human CYP1A1

Cat. No. CYP1A1-27558TH **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant full length Human Cytochrome P450 1A1 with N terminal proprietary tag; Predicted MWt 82.06 kDa.
Species	Human
Source	Wheat Germ
ProteinLength	512 amino acids
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 enzymes 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.
Molecular Weight	82.060kDa inclusive of tags
Tissue specificity	Lung, lymphocytes and placenta.
Form	Liquid

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

Purity	Proprietary Purification
Storage buffer	pH: 8.00 Constituents: 0.3% Glutathione, 0.79% Tris HCl
Storage	Shipped on dry ice. Upon delivery aliquot and store at -80oC. Avoid freeze / thaw cycles.
Sequences of amino acids	MLFPISMSATEFLLASVIFCLVFWVIRASRPQVPKGLKNP PGPWGWPLIGHMLTLGK NPHLALSRMSQQYGDVLQIRIGS TPVVVLSGLDTIRQALVRQGDDFKGRPDLYTFTL ISNGQS MSFSPDSGPVWAARRRLAQNGLKSFSIASDPASSTSCYLE EHVSKAEVL ISTLQELMAGPGHFNPYRYVVSVTNVICA ICFGRRYDHNHQELLSLVNLNNNFGEV VGSGNPADFIPI RYLPNPSLNAFKDLNEKFYSFMQKMKVKEHYKTFEKGHIRD ITDS LIEHCQEKQLDENANVQLSDEKIINIVLDLFGAGFD TVTTAISWSL MYLVMNPRVQRK IQEELDTVIGRSRRPRLS DRSHLPYMEAFIETFRHSSFPFTIPHSTTRDTSKGFY I PKGRCVFVNQWQINHDQKLWVNPSEFLPERFLTPDGAID KVLSEKVIIFGMGKRKCI GETIARWEVFLFLAILLQRVEF SVPLGVKVDMTPIYGLTMKHACCEHFQMQLRS
Sequence Similarities	Belongs to the cytochrome P450 family.

GENE INFORMATION

Gene Name	CYP1A1 cytochrome P450, family 1, subfamily A, polypeptide 1 [Homo sapiens]
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;
Gene ID	1543

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mRNA Refseq	NM_000499
Protein Refseq	NP_000490
MIM	108330
Uniprot ID	P04798
Chromosome Location	15q24.1
Pathway	Biological oxidations, organism-specific biosystem; Cytochrome P450 - arranged by substrate type, organism-specific biosystem; Fatty Acid Omega Oxidation, organism-specific biosystem; Fatty acid, triacylglycerol, and ketone body metabolism, organism-specific biosystem; Metabolic pathways, organism-specific biosystem;
Function	aromatase activity; demethylase activity; electron carrier activity; enzyme binding; flavonoid 3-monooxygenase activity;

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