

## Product datasheet for PH322995

### Cytochrome P450 2A6 (CYP2A6) (NM\_000762) Human Mass Spec Standard

#### Product data:

Product Type:	Mass Spec Standards
Description:	CYP2A6 MS Standard C13 and N15-labeled recombinant protein (NP_000753)
Species:	Human
Expression Host:	HEK293
Expression cDNA Clone or AA Sequence:	RC222995
Predicted MW:	56.5 kDa
Protein Sequence:	>RC222995 protein sequence Red=Cloning site Green=Tags(s)

MLASGMLLVALLVCLTVMVLMVSVWQQRKSKGKLPPTPLPFIGNYLQLNTEQMYNSLMKISERYGPVFT  
IHLGPRRVVVLGHDVAVREALVDQAEFSGRGEQATFDWYFKGYGVVFSNGERAKLRRFSIATLRDFGV  
GKRGIEERIQEEAGFLIDALRGTGGANIDPTFFLSRTVSNVISSIVFGDRFDYKDKEFLSLLRMMLGIFQ  
FTSTSTGQLYEMFSSVMKHLPGPQQAFQLLQGLEDFIAKKVEHNQRTLDPNSPRDFIDSFLIRMQEEEK  
NPNTEFYLNKLVMTTLNLFIGGTETVSTLRYGFLLMKHPEVEAKVHEEIDRVIGKNRQPKFEDRAKMP  
YMEAVIHEIQRFQDVIPMSLARRVKKDTKFRDFFLPKGTEVYPMLGSVLRDPSFFSNPQDFNPQHFLNEK  
GQFKKSDAFVPSIGKRNCFGEGLARMELFLFFTVMQNFRLKSSQSPKDIDVSPKHVGFATIPRNYTMS  
FLPR

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- <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:	<u>NP_000753</u>
RefSeq Size:	1775
RefSeq ORF:	1482



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**Synonyms:** CPA6; CYP2A; CYP2A3; CYP11A6; P450C2A; P450PB

**Locus ID:** 1548

**UniProt ID:** [P11509](#)

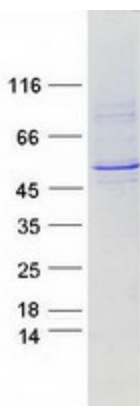
**Cytogenetics:** 19q13.2

**Summary:** This gene, CYP2A6, 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 phenobarbital. The enzyme is known to hydroxylate coumarin, and also metabolizes nicotine, aflatoxin B1, nitrosamines, and some pharmaceuticals. Individuals with certain allelic variants are said to have a poor metabolizer phenotype, meaning they do not efficiently metabolize coumarin or nicotine. This gene is part of a large cluster of cytochrome P450 genes from the CYP2A, CYP2B and CYP2F subfamilies on chromosome 19q. The gene was formerly referred to as CYP2A3; however, it has been renamed CYP2A6. [provided by RefSeq, Jul 2008]

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

**Protein Pathways:** Caffeine metabolism, Drug metabolism - cytochrome P450, Drug metabolism - other enzymes, Metabolic pathways, Retinol metabolism

### Product images:



Coomassie blue staining of purified CYP2A6 protein (Cat# [TP322995]). The protein was produced from HEK293T cells transfected with CYP2A6 cDNA clone (Cat# [RC222995]) using MegaTran 2.0 (Cat# [TT210002]).