

Product datasheet for **RC401073**

Epoxide hydrolase (EPHX1) (NM_000120) Human Mutant ORF Clone

Product data:

Product Type:	Mutant ORF Clones
Product Name:	Epoxide hydrolase (EPHX1) (NM_000120) Human Mutant ORF Clone
Mutation Description:	R43T
Affected Codon#:	43
Affected NT#:	128
Nucleotide Mutation:	EPHX1 Mutant (R43T), Myc-DDK-tagged ORF clone of Homo sapiens epoxide hydrolase 1, microsomal (xenobiotic) (EPHX1), transcript variant 1 as transfection-ready DNA
Effect:	Inresed EPHX1 iviy, ssoiion wih
Symbol:	EPHX1
Synonyms:	EPHX; EPOX; HYL1; MEH
E. coli Selection:	Kanamycin (25 ug/mL)
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
Tag:	Myc-DDK
ACCN:	NM_000120
ORF Size:	1365 bp
Restriction Sites:	Sgfl-Mlul



[View online »](#)

ORF Nucleotide Sequence:

>RC401073 representing NM_000120
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGTGGCTAGAAATCCTCCTCACTTCAGTGCTGGGCTTTGCCATCTACTGGTTCATCTCCCGGGACAAG
 AGGAAACTTTGCCACTTGAAGATGGGTGGTGGGGCCAGGCACGAGTCCGCAGCCACGGAGGACGACAG
 CATCCGCCCTTTCAAGGTGAAAACGTCAGATGAGGAGATCCACGACTTACACCAGAGGATCGATAAGTTC
 CGTTTACCCACCTTTGGAGGACAGCTGCTTCCACTATGGTTCAACTCCAACCTACCTGAAGAAAGTCA
 TCTCTACTGGCGGAATGAATTTGACTGGAAGAAGCAGGTGGAGATTCTCAACAGATACCTCACTTCAA
 GACTAAGATTGAAGGGCTGGACATCCACTTCATCCACGTGAAGCCCCCAGCTGCCCGAGGCCATAACC
 CCGAAGCCCTTGCTGATGGTGCACGGCTGGCCCGCTCTTCTACGATTTTATAAGATCATCCACTCC
 TGACTGACCCCAAGAACCATGGCTGAGCGATGAGCACGTTTTTGAAGTCATCTGCCCTTCCATCCCTGG
 CTATGGCTTCTCAGAGGCATCCTCCAAGAAGGGTTCAACTCGGTGGCCACCGCCAGGATCTTTTACAAG
 CTGATGCTGCGCTGGGCTTCCAGGAATTCACATTCAAGGAGGGGACTGGGGTCCCTGATCTGCACTA
 ATATGGCCCAGCTGGTGCCAGCCACGTGAAAGGCCTGCACTTGAACATGGCTTTGGTTTTAAGCAACT
 CTCTACCTGACCCTCCTCCTGGGACAGCGTTTCGGGAGGTTTCTTGGCCTCACTGAGAGGGATGTGGAG
 CTGCTGTACCCCGTCAAGGAGAAGGTATTCTACAGCCTGATGAGGGAGAGCGGCTACATGCACATCCAGT
 GCACCAAGCCTGACACCGTAGGCTCTGCTCTGAATGACTCTCCTGTGGTCTGGCTGCCTATATTCTAGA
 GAAGTTTTCCACTGGACCAATACGGAATCCGATACCTGGAGGATGGAGGCCTGAAAGGAAGTTCTCC
 CTGGACGACCTGCTGACCAACGTATGCTCTACTGGACAACAGGCACCATCATCTCTCCAGCGCTTCT
 ACAAGGAGAACCTGGACAGGGCTGGATGACCAGAAGCATGAGCGGATGAAGGTCTATGTGCCACTGG
 CTTCTCTGCCTTCCCTTTTGGCTATTGCACACGCTGAAAAGTGGGTGAGGTTCAAGTACCCAAAGCTC
 ATCTCCTATTCTACATGGTTCTGGGGCCACTTTGGCGCTTTGAGGAGCCGAGCTGCTCGCCAGG
 ACATCCGCAAGTTCCTGTGGTCTGGAGCGGCAA

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
 TGGATTACAAGGATGACGACGA TAAGGTTTAA

Protein Sequence:

>RC401073 representing NM_000120
 Red=Cloning site Green=Tags(s)

MWLEILLTSVLGFAIYWFISRDKETLPLEDGGWPGTRSAATEDDSIRPFKETSDEEIHDLHQRIDKF
 RFTPLEDSCFHYGFNSNYLKKVISYWRNEFDWKKQVEILNRYPHFKTKIEGLDIHF IHVKPPQLPAGHT
 PKPLL MVHGWPGSFYEFYKI IPLL TDPKNHGLSDEHVFEVICPSIPGYGFSEASSKKGFNSVATARIFYK
 LMLRLGFQEFYIQGGDWGSLICTNMAQLVPSHVKGLHLNMLVLSNFSTLTL LLGQRFGRFLGLTERDVE
 LLYPVKEKVFYSLMRESGYMHIQCTKPDVGSALNDSPVGLAAYILEKFTWTNTEFRYLEDGGLERKFS
 LDDLLTNVMLYWTTGTIISSQRFYKENLGQGWMTQKHERMKVYVPTGFSAFPPELLHTPEKWVRFKYPKL
 ISYSYMRGGHFAAFEEPELLAQDIRKFLSVLERQ

SGPTRRRLEQKLI SEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:

OTI Disclaimer:

Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in *E. coli* are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation:

This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components:

The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

RefSeq:

[NP_000111](#)

RefSeq Size:

1365 bp

RefSeq ORF:

1368 bp

Locus ID:

2052

Cytogenetics:

1q42.12

Domains:

abhydrolase

Protein Families:

Druggable Genome, Protease

Protein Pathways:

Metabolism of xenobiotics by cytochrome P450

MW: 50.1 kDa

Gene Summary: Epoxide hydrolase is a critical biotransformation enzyme that converts epoxides from the degradation of aromatic compounds to trans-dihydrodiols which can be conjugated and excreted from the body. Epoxide hydrolase functions in both the activation and detoxification of epoxides. Mutations in this gene cause preeclampsia, epoxide hydrolase deficiency or increased epoxide hydrolase activity. Alternatively spliced transcript variants encoding the same protein have been found for this gene.[provided by RefSeq, Dec 2008]