

Product datasheet for **RC200621**

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

Product data:

Product Type:	Expression Plasmids
Product Name:	Epoxide hydrolase (EPHX1) (NM_000120) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Epoxide hydrolase
Synonyms:	EPHX; EPOX; HYL1; MEH
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RC200621 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGTGGCTAGAAATCCTCCTCACTTCAGTGCTGGGCTTTGCCATCTACTGGTTCATCTCCGGGACAAAG
 AGGAAACTTTGCCACTTGAAGATGGGTGGTGGGGCCAGGCACGAGGTCCGCAGCCAGGGAGGACGACAG
 CATCCGCCCTTTCAAGGTGGAACGTCAGATGAGGAGATCCACGACTTACACCAGAGGATCGATAAGTTC
 CGTTTCACCCACCTTTGGAGGACAGCTGCTTCCACTATGGCTTCAACTCCAACCTACCTGAAGAAAGTCA
 TCTCTACTGGCGGAATGAATTTGACTGGAAGAAGCAGGTGGAGATTCTCAACAGATACCCTCACTTCAA
 GACTAAGATTGAAGGGCTGGACATCCACTTCATCCACGTGAAGCCCCCAGCTGCCCGCAGGCCATACC
 CCGAAGCCCTTGCTGATGGTGCACGGCTGGCCCGGCTTTTCTACGATTTTATAAGATCATCCACTCC
 TGACTGACCCCAAGAACCATGGCCTGAGCGATGAGCACGTTTTTGAAGTCATCTGCCCTTCCATCCCTGG
 CTATGGCTTCTCAGAGGCATCCTCCAAGAAGGGTTCAACTCGGTGGCCACCGCCAGGATCTTTTACAAG
 CTGATGCTGCGGCTGGGCTTCCAGGAATTCACATTCAAGGAGGGGACTGGGGTCCCTGATCTGCACTA
 ATATGGCCAGCTGGTGGCCAGCCACGTGAAAGGCCTGCACCTGAACATGGCTTTGGTTTTAAGCAACT
 CTCTACCTGACCTCCTCCTGGGACAGCGTTTCGGGAGGTTTCTTGGCCTCACTGAGAGGGATGTGGAG
 CTGCTGTACCCCGTCAAGGAGAAGGTAATCTACAGCCTGATGAGGGAGAGCGGCTACATGCACATCCAGT
 GCACCAAGCCTGACACCGTAGGCTCTGCTCTGAATGACTCTCCTGTGGTCTGGCTGCCTATATTCTAGA
 GAAGTTTTCCACCTGGACCAATACGGAATTCGATACCTGGAGGATGGAGGCCTGAAAGGAAGTTCTCC
 CTGGACGACCTGCTGACCAACGTATGCTCTACTGGACAACAGGCACCATCATCTCTCCAGCGCTTCT
 ACAAGGAGAACCCTGGGACAGGGCTGGATGACCCAGAAGCATGAGCGGATGAAGGTCTATGTGCCACTGG
 CTCTCTGCCTTCCCTTTTGGACTATTGCACACGCTGAAAAGTGGGTGAGGTTCAAGTACCCAAAGCTC
 ATCTCCTATTCTACATGGTTCGTGGGGCCACTTTGCGGCTTTGAGGAGCCGGAGCTGCTCGCCAGG
 ACATCCGCAAGTCTGTGGTCTGGAGCGGCAA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC200621 protein sequence
 Red=Cloning site Green=Tags(s)

MWLEILLTSVLGFAYWFISRDKETLPLEDGWWGPGTRSAAREDDSIKPFKETSDEEIHDLHQRIDKF
 RFTPPLEDSCFHYGFNENYKLVISYWRNEFDWKKQVEILNRYPHFKTKIEGLDIHFIVKPPQLPAGHT
 PKPLLMVHGWPGSFYEFYKIIPLLDPKNHGLSDEHVFVVICPSIPGYGFSEASSKKGFNVSATARIFYK
 LMLRLGFQEFYIQGGDWGSLICTNMAQLVPSHVKGLHLNMLVLSNFSTLTLLLGQRFGRFLGLTERDVE
 LLYPVKEKVFYSLMRESGYMHIQCTKPDYVGSALNDSPVGLAAYILEKFTWTNTEFRYLEDGGLERKFS
 LDDLLTNVMLYWTGTIISSQRFYKENLGQWMTQKHERMKVYVPTGFSAFPPELLHTPEKWVRFKYPKL
 ISYSYMRGGHFAAFEEPELLAQDIRKFLSVLERQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6083_h12.zip

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



ACCN: NM_000120

ORF Size: 1365 bp

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.

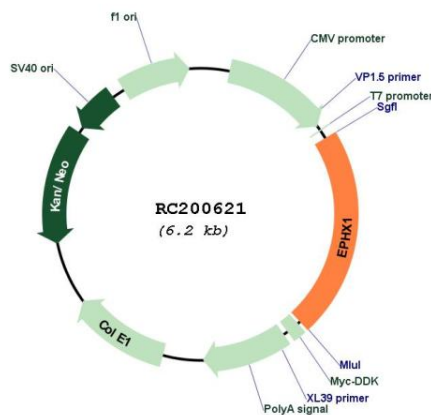
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

- Reconstitution Method:
1. Centrifuge at 5,000xg for 5min.
 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
 3. Close the tube and incubate for 10 minutes at room temperature.
 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
 5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

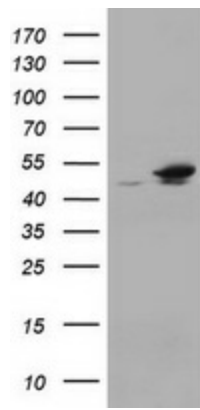
RefSeq: [NM_000120.4](#)
RefSeq Size: 1847 bp
RefSeq ORF: 1368 bp
Locus ID: 2052
UniProt ID: [P07099](#)
Cytogenetics: 1q42.12
Domains: abhydrolase
Protein Families: Druggable Genome, Protease
Protein Pathways: Metabolism of xenobiotics by cytochrome P450
MW: 52.9 kDa

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]

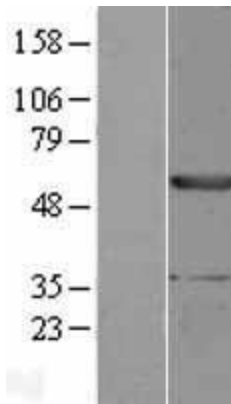
Product images:



Circular map for RC200621



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY EPHX1 (Cat# RC200621, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-EPHX1 (Cat# [TA800407]). Positive lysates [LY400042] (100ug) and [LC400042] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY427767]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC227627] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified EPHX1 protein (Cat# [TP300621]). The protein was produced from HEK293T cells transfected with EPHX1 cDNA clone (Cat# RC200621) using MegaTran 2.0 (Cat# [TT210002]).