

## Product datasheet for **RG200621**

### 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:	TurboGFP
Symbol:	Epoxide hydrolase
Synonyms:	EPHX; EPOX; HYL1; MEH
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG200621 representing NM\_000120  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGTGGCTAGAAATCCTCCTCACTTCAGTGTGGCTTTGCCATCTACTGGTTCATCTCCGGGACAAAG  
 AGGAAACTTTGCCACTTGAAGATGGGTGGTGGGGCCAGGCACGAGGTCCGCAGCCAGGGAGGACGACAG  
 CATCCGCCCTTTCAAGGTGGAACGTCAGATGAGGAGATCCACGACTTACACCAGAGGATCGATAAGTTC  
 CGTTTACCCACCTTTGGAGGACAGCTGCTTCCACTATGGCTTCAACTCCAACCTACCTGAAGAAAGTCA  
 TCTCTACTGGCGGAATGAATTTGACTGGAAGAAGCAGGTGGAGATTCTCAACAGATACCCTCACTTCAA  
 GACTAAGATTGAAGGGCTGGACATCCACTTCATCCACGTGAAGCCCCCAGCTGCCCGCAGGCCATACC  
 CCGAAGCCCTTGCTGATGGTGCACGGCTGGCCCGCTTTTCTACGATTTTATAAGATCATCCACTCC  
 TGACTGACCCCAAGAACCATGGCCTGAGCGATGAGCACGTTTTTGAAGTCATCTGCCCTTCCATCCCTGG  
 CTATGGCTTCTCAGAGGCATCCTCAAGAAGGGTTCAACTCGGTGGCCACCGCCAGGATCTTTTACAAG  
 CTGATGCTGCGGCTGGGCTTCCAGGAATTTACATTCAAGGAGGGGACTGGGGTCCCTGATCTGCACTA  
 ATATGGCCAGCTGGTGGCCAGCCACGTGAAAGGCCTGCCTTGAACATGGCTTTGGTTTTAAGCAACTT  
 CTCTACCTGACCCTCCTCCTGGGACAGCGTTTCGGGAGGTTTCTTGGCCTCACTGAGAGGGATGTGGAG  
 CTGCTGTACCCCGTCAAGGAGAAGGTAATCTACAGCCTGATGAGGGAGAGCGGCTACATGCACATCCAGT  
 GCACCAAGCCTGACACCGTAGGCTCTGCTCTGAATGACTCTCCTGTGGGTCTGGCTGCCTATATTCTAGA  
 GAAGTTTTCCACCTGGACCAATACGGAATTCGATACCTGGAGGATGGAGGCCTGGAAAGGAAGTTCTCC  
 CTGGACGACCTGCTGACCAACGTATGCTCTACTGGACAACAGGCACCATCATCTCTCCAGCGCTTCT  
 ACAAGGAGAACCCTGGGACAGGGCTGGATGACCCAGAAGCATGAGCGGATGAAGGTCTATGTGCCACTGG  
 CTCTCTGCCCTTCCCTTTTGGAGCTATTGCACAGCCTGAAAAGTGGGTGAGGTTCAAGTACCCAAAGCTC  
 ATCTCCTATTCTACATGGTTCGTGGGGCCACTTTGCGGCCTTTGAGGAGCCGGAGCTGCTCGCCAGG  
 ACATCCGCAAGTCTGTGGTCTGGAGCGGCAA

**ACGCGT**ACGCGGCCGCTCGAG – GFP Tag – GTTTAA

**Protein Sequence:**

>RG200621 representing NM\_000120  
 Red=Cloning site Green=Tags(s)

MWLEILLTSVLGFAYWFISRDKETLPLEDGWWPGTRSAAREDDSIKPKVETSDEEIHDLHQRIDKF  
 RFTPPLEDSCFHYGFNENYKLVISYWRNEFDWKKQVEILNRYPHFKTKIEGLDIHF IHVKKPQLPAGHT  
 PKPLLMVHGWPFSFYEFYKIIPLLTDPKNHGLSDEHVFEVICPSIPGYGFSEASSKKGFNVSATARIFYK  
 LMLRLGFQEFYIQGGDWGSLICTNMAQLVPSHVKGLHLNMLVLSNFSTLTLLLGQRFGRFLGLTERDVE  
 LLYPVKEKVFYSLMRESGYMHIQCTKPDVTGVSALNDSPVGLAAYILEKFTWTNTEFRYLEDGGLERKFS  
 LDDLLTNVMLYTTGTIISSQRFYKENLGQGMWTKQHERMKVYVPTGFSAFPPELLHTPEKWRVFKYPKL  
 ISYSYMRGGHFAAFEEPELLAQDIRKFLSVLERQ

**TRTRPLE** – GFP Tag – V

**Restriction Sites:**

SgfI-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](mailto: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.

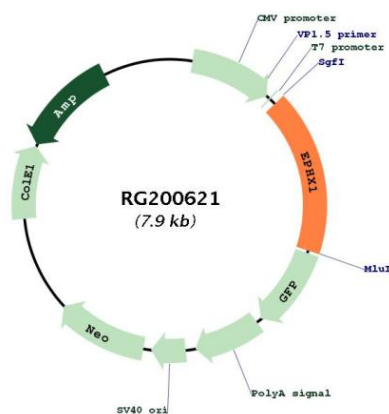
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

- 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:	1856 bp
RefSeq ORF:	1368 bp
Locus ID:	2052
UniProt ID:	<a href="#">P07099</a>
Cytogenetics:	1q42.12
Domains:	abhydrolase
Protein Families:	Druggable Genome, Protease
Protein Pathways:	Metabolism of xenobiotics by cytochrome P450
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 RG200621