

Product datasheet for **MR230173**

Ephx2 (NM_001271421) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Ephx2 (NM_001271421) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Ephx2
Synonyms:	CEH; Eph2; SEH; sEP
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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ORF Nucleotide Sequence:

>MR230173 representing NM_001271421
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGATGAAAGCTACAGGAAGTCTCCAAGCCTGTGGAGCCAATCTACCTGAGAATTTCTCCATAAGTCA
 AAATATTCAGCCAAGCTATGGCAGCAAGAAGCATCAACCGCCCATGCTTCAGGCAGCCATTGCTCTCAA
 AAAGAAAGGATTACAACATGCATTGTACCAACAACCTGGCTGGACGACGAGACAGAGAGACAGCCTG
 GCCCAGATGATGTGTGAGCTGAGCCAACACTTTGACTTCTGATAGAGTCTGTGAGTTGGGATGATCA
 AGCCTGAGCCTCAGATCTACAATTTTTACTGGATACCTGAAGGCAAAACCAATGAGGTTGTTTTCT
 AGATGACTTTGGAAGTAATCTGAAGCCAGCCCGTGACATGGGGATGGTTACCATCCTGGTCCACAACACA
 GCCTCCGCTCTGAGAGAAGTGGAGAAGGTACAGGGACACAGTTTCTGAGGCCCACTGCCAGTCCCAT
 GCAATCCAAATGACGTCAGCCATGGATATGTGACAGTGAAGCCAGGGATCCGCCTGCATTTTGTGGAGAT
 GGGCTCTGGCCCTGCCCTATGCCTTTGCCATGGGTTTCTGAGAGCTGGTTTTCTTGAGGATACCAGATC
 CCTGCTCTGGCCAGGCAGGCTTTCGTGTTCTGGCTATAGACATGAAAGGCTATGGAGACTCATCTCTC
 CTCTGAAATAGAAGAATATGCCATGGAATTGCTGTGTAAGGAGATGGTACATTCCTGGATAAGCTGGG
 AATCCCTCAAGCAGTGTTTCATTGGCCATGACTGGGCTGGTGTGATGGTGTGGAACATGGCTCTCTTAC
 CCTGAGAGAGTGAAGGCTGTGGCCAGTTTGAACACGCCGTTTATGCCACCAGATCCTGATGTGTCTCCCA
 TGAAAGTTATCCGATCTATCCAGTTTTCAATTATCAGCTGTACTTTCAAGAACCAGGAGTGGCCGAGGC
 TGAAGTGGAGAAGAACATGAGTCGGACTTTCAAAGCTTCTTCCGAGCCAGTGATGAGACAGTTTCATC
 GCTGTGCATAAAGCCACTGAAATAGGGGGAATCCTTGTGAATACTCCAGAAGATCCCAACCTCAGCAAAA
 TTAAGTGGAGAAGAATAAGAGTTTTACATACAGCAGTTCAAGAAGACTGGCTTCAGAGGTCCTCTGAA
 CTGGTACCGGAACACAGAAAGAACTGGAAGTGGAGCTGTAAAGGTTGGGACGAAAGATCTTGGTCCCA
 GCCCTGATGGTACAGCTGAGAAGGACATTGACTCCGCTCCTGAAATGTCCAAGAACATGAAAAAGTGGAA
 TCCCTTCTGAAAGGGGACACATTGAAGACTGTGGTCACTGGACACAGATAGAGAAACCAACTGAGGT
 GAACCAGATTCTCATCAAGTGGCTGCAGACTGAAGTCCAGAACCATCAGTGACCTCAAGATT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR230173 representing NM_001271421
 Red=Cloning site Green=Tags(s)

MDESYRSSKACGANLPENFSISQIFSQAMAARSINRPLQAAIALKKKGFTTCIVTNNWLDGDKRDSL
 AQMMCELSQHFDLIESQVGMKPEPQIYNFLDLTKAKPNEVFLDDFGSNLKPARDMGMVTILVHNT
 ASALRELEKVTGTQFPEAPLPVPCNPNDVSHGYVTKPGIRLHFVEMGSGPALCLCHGFPESWFSWRYQI
 PALAQAGFRVLAIDMKGYDSSPPEIEEYAMELLCKEMVTFDLKLGIPQAVFIGHDWAGVMVWNMALFY
 PERVRVASLNTPFMPDPDVSPMKVIRSIPVFNYQLYFQEPGVAEAELEKNMSRTFKSFFRASDETGF
 AVHKATEIGGILVNTPEDPNLSKITTEEEIEFYIQQFKTGFRGPLNWRNTERNWKSCKGLGRKILVP
 ALMVTAEKDIVLRPEMSKNMEKWIPFLKRGHIEDCGHWTQIEKPTEVNQILIKWLQTEVQNPSTSKI

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

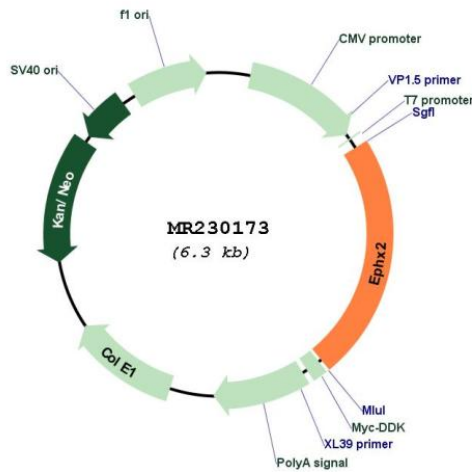
Restriction Sites:

SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN:

NM_001271421

ORF Size:

1464 bp

OTI Disclaimer:

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:	<ol style="list-style-type: none">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:	<u>NM_001271421.1, NP_001258350.1</u>
RefSeq Size:	2037 bp
RefSeq ORF:	1467 bp
Locus ID:	13850
Cytogenetics:	14 34.36 cM
MW:	55.7 kDa
Gene Summary:	Bifunctional enzyme. The C-terminal domain has epoxide hydrolase activity and acts on epoxides (alkene oxides, oxiranes) and arene oxides. Plays a role in xenobiotic metabolism by degrading potentially toxic epoxides. Also determines steady-state levels of physiological mediators. The N-terminal domain has lipid phosphatase activity, with the highest activity towards threo-9,10-phosphonoxy-hydroxy-octadecanoic acid, followed by erythro-9,10-phosphonoxy-hydroxy-octadecanoic acid, 12-phosphonoxy-octadec-9Z-enoic acid and 12-phosphonoxy-octadec-9E-enoic acid.[UniProtKB/Swiss-Prot Function]