

Product datasheet for **MR230425**

Ephx2 (NM_001271403) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Ephx2 (NM_001271403) 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:

>MR230425 representing NM_001271403
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGCGGTTTGCAGCGATGGCGGCTTCTCTGTGTTCTTTGTGAGTAAGGGTCTTTTGATGAACCTCAACA
 TTTGGTGTGTTGGCCAGGAAGGCCCTTCTCAGGAGGACACAGACACCATACATACATCAGAGTGGGTACC
 ACTCATGGATGAAAGCTACAGGAAGTCCTCCAAGCCTGTGGAGCCAATCTACCTGAGAATTTCTCCATA
 AGTCAAATATTCAGCCAAGCTATGGCAGCAAGAAGCATCAACCGCCCATGCTTCAGGCAGCCATTGCTC
 TCAAAAAGAAAGGATTACAACATGCATTGTCCACCAACTGGCTGGACGACGGAGACAAGAGAGACAG
 CCTGGCCAGATGATGTGTGAGCTGAGCCAACACTTTGACTTCTGATAGAGTCTGTGAGTTGGGATG
 ATCAAGCCTGAGCCTCAGATCTACAATTTTTACTGGATACCCTGAAGGCAAAACCAATGAGGTTGTTT
 TCCTAGATGACTTTGGAAGTAATCTGAAGCCAGCCGTGACATGGGGATGGTTACCATCCTGGTCCACAA
 CACAGCCTCCGCTCTGAGAGAAGTGGAGAAGGTCACAGGGACACAGTTTCTGAGCCCCACTGCCAGTC
 CCATGCAATCAAATGAGTCTCAGCCATGGATATGTGACAGTGAAGCCAGGGATCCGCTGCATTTGTGG
 AGATGGGCTCTGGCCCTGCCCTATGCCTTTGCCATGGGTTTCTGAGAGCTGGTTTTCTGGAGGTACCA
 GATCCCTGCTCTGGCCAGGCAGGCTTTCTGTGTTCTGGCTATAGACATGAAAGGCTATGGAGACTCATCT
 TCTCCTCTGAAATAGAAGAATATGCCATGGAATTGCTGTGTAAGGAGATGGTGACATTCCTGGATAAGC
 TGGGAATCCCTCAAGCAGTGTTCATTGGCCATGACTGGGCTGGTGTGATGGTGTGGAACATGGCTCTCT
 CTACCTGAGAGAGTGGGGCTGTGGCCAGTTTGAACACGCCGTTTATGCCACCAGATCCTGATGTGCT
 CCCATGAAAGTTATCCGATCTATCCAGTTTTCAATTATCAGCTGACTTTCAAGAACCAGGAGTGGCCG
 AGGCTGAACGGAGAAGAACATGAGTCGGACTTCAAAAGCTTCTCCGAGCCAGTGTGAGACAGGTTT
 CATCGCTGTGCATAAAGCCACTGAAATAGGGGGAATCCTTGTGAATACTCCAGAAGATCCCAACCTCAGC
 AAAATTACTACTGAGGAAGAAATAGAGTTTTACATACAGCAGTTCAAGAAGACTGGCTTCAGAGGTCTC
 TGAAGTGGTACCGGAACACAGAAAGAACTGGAAGTGGAGCTGTAAGGGTTGGGACGAAAGATCTTGGT
 CCCAGCCCTGATGGTACAGCTGAGAAGGACATTGACTCCGCTCTGAAATGTCCAAGAACATGGAAAAG
 TGGATCCCTTCTGAAAAGGGGACACATTGAAGACTGTGGTCACTGGACACAGATAGAGAAACCAACTG
 AGGTGAACCAGATTCTCATCAAGTGGCTGCAGACTGAAGTCCAGAACCATCAGTGACCTCAAGATT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR230425 representing NM_001271403
 Red=Cloning site Green=Tags(s)

MRFAAMAAFSVFFVSKGLLMNSNIWCVGQEGPSQEDTDIHTSEWVPLMDESyrkSSKACGANLPENFSI
 SQIFSQAMAARSINRPLQAAIALKKKFTTCIVTNWLDDGDKRDSLAQMMCELQHFDFLIESCQVGM
 IKPEPQIYNFLDLTKAKPNEVVFLDDFGSNLKPARDMGMTILVHNTASALRELEKVTGTQFPEAPLPV
 PCNPNDVSHGYVTVKPGIRLHFVEMGSGPALCLCHGFPESWFWRYPALAQAGFRVLAIDMKGYGDSS
 SPPEIEEYAMELLCKEMVTFLDKLGIPQAVFIGHDWAGVMVWMMALFYPERVRAVASLNTPFMPDPDVS
 PMKVIRSIPVFNQYL YFQEPGVAEAELEKNMSRTFKSFFRASDETGFIAVHKATEIGGILVNTPEDPNLS
 KITTEEEIEFYIQQFKTGFRGPLNWRNTERNWWSCKGLGRKILVPALMVTAEKDIVLRPEMSKNMEK
 WIPFLKRGHIEDCGHWTQIEKPTEVNQILIKWLQTEVQNPVSVTSKI

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

ACCN:	NM_001271403
ORF Size:	1608 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:	NM_001271403.1 , NP_001258332.1
RefSeq Size:	1987 bp
RefSeq ORF:	1611 bp
Locus ID:	13850
UniProt ID:	P34914
Cytogenetics:	14 34.36 cM
MW:	61.1 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]