

## Product datasheet for **MG208783**

### Ephx2 (NM\_007940) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Ephx2 (NM_007940) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Ephx2
Synonyms:	CEH; Eph2; SEH; sEP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG208783 representing NM\_007940  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCGCTGCGTGTAGCCGCGTTGACCTTGACGGAGTGTGGCCCTCCCCTCTATCGCCGGGGCTTTCC  
 GCCGCAGCGAAGAGGCCCTGGCACTGCCTAGAGACTTCCTGCTTGGTGGTACCAGACGGAATCCAGAG  
 GGGACCCACTGAGCAACTCATGAAAGGGAAGATCACATTTTCGAGTGGTACCCTCATGGATGAAAGC  
 TACAGGAAGTCTCCAAAGCCTGTGGAGCAATCTACCTGAGAATTTCTCCATAAGTCAAATATTCAGCC  
 AAGCTATGGCAGCAAGAAGCATCAACCGCCCCATGCTTCAGGCAGCCATTGCTCTCAAAAAGAAAGGATT  
 CACAACATGCATTGTACCAACAACCTGGCTGGACGACGGAGACAAGAGAGACAGCCTGGCCAGATGATG  
 TGTGAGCTGAGCCAACACTTTGACTTCCTGATAGAGTCTGTGAGTTGGGATGATCAAGCCTGAGCCTC  
 AGATCTACAATTTTTACTGGATACCCTGAAGGCAAAACCAATGAGGTTGTTTTCTAGATGACTTTGG  
 AAGTAATCTGAAGCCAGCCGCTGACATGGGGATGGTTACCATCCTGGTCCACAACACAGCCTCCGCTCTG  
 AGAGAACTGGAGAAGGTACAGGGACACAGTTTCTGAGGCCCACTGCCAGTCCCATGCAATCCAAATG  
 ACGTCAGCCATGGATATGTGACAGTGAAGCCAGGGATCCGCTGCATTTTGTGGAGATGGGCTCTGGCCC  
 TGCCCTATGCCTTTGCCATGGGTTTCTGAGAGCTGGTTTTCTGGAGGTACCAGATCCCTGCTCTGGCC  
 CAGGCAGGCTTTCTGTTCTGGCTATAGACATGAAAGGCTATGGAGACTCATCTTCTCCTCTGAAATAG  
 AAGAATATGCCATGGAATTGCTGTGTAAGGAGATGGTGACATTCCTGGATAAGCTGGGAATCCCTCAAGC  
 AGTGTTCATTGGCCATGACTGGGCTGGTGTGATGGTGTGGAACATGGCTCTTTCTACCTGAGAGAGTG  
 AGGGCTGTGGCCAGTTTGAACACGCCGTTTATGCCACCAGATCCTGATGTGTCTCCCATGAAAGTTATCC  
 GATCATCCCAGTTTTCAATTATCAGCTGTACTTTCAAGAACCAGGAGTGGCCGAGGCTGAAGTGGAGAA  
 GAACATGAGTCGGACTTTCAAAAAGCTTCTCCGAGCCAGTGATGAGACAGGTTTTCATCGCTGTGCATAAA  
 GCCACTGAAATAGGGGAATCCTTGTGAATACTCCAGAAGATCCCAACCTCAGCAAAATTACTACTGAGG  
 AAGAAATAGAGTTTTACATACAGCAGTTCAAGAAGACTGGCTTCAGAGGTCTCTGAACTGGTACCGGAA  
 CACAGAAAGAAACTGGAAGTGGAGCTGTAAGGGTTGGGACGAAAGATCTTGGTCCAGCCCTGATGGTC  
 ACAGCTGAGAAGGACATTGTAAGTCCGCTCTGAAATGTCCAAGAACATGGAAAAGTGGATCCCTTTCTGA  
 AAAGGGGACACATTGAAGACTGTGGTCACTGGACACAGATAGAGAAACCAACTGAGGTGAACCAGATTCT  
 CATCAAGTGGCTGCAGACTGAAGTCCAGAACCCATCAGTGACCTCAAGATT

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA

**Protein Sequence:**

>MG208783 representing NM\_007940  
 Red=Cloning site Green=Tags(s)

MALRVAAFDLGVLALPSIAGAFRRSEALALPRDFLLGAYQTEFPEGPTQLMKGKITFSQWVPLMDES  
 YRKSSKACGANLPENFSISQIFSQAMAARSINRPMLQAAIALKKKGFTTCIVTNNWLDDGDKRDSLAAQMM  
 CELSQHFDFLIESCQVGMKPEPQIYNFLLDTLKAKPNEVFLDDFGSNLKPARDMGMVTILVHNTASAL  
 RELEKVTGTQFPEAPLPVPCNPNDVSHGYVTVKPGIRLHFVEMGSGPALCLCHGFPESWFSWRYQIPALA  
 QAGFRVLAIDMKGYDSSPPEIEEYAMELLCKEMVTFDLKLGIPQAVFIGHDWAGVMVWMMALFYPERV  
 RAVASLNTPFMPDPDVSPMKVIRSIPVFNYQLYFQEPGVAEAELEKNMSRTFKSFFRASDETGFIAVHK  
 ATEIGGILVNTPEPNLSKITTEEEIEFYIQQFKKTGFRGPLNWRNTERNWKSCKGLGRKILVPALMV  
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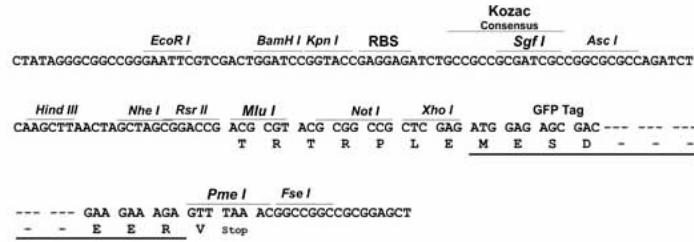
**TRTRPLE** - GFP Tag - V

**Restriction Sites:**

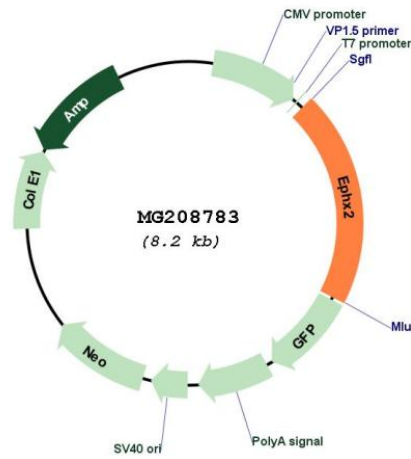
Sgfl-MluI

## Cloning Scheme:

Cloning sites used for ORF Shutting:



## Plasmid Map:



<b>ACCN:</b>	NM_007940
<b>ORF Size:</b>	1662 bp
<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_007940.4</a>
<b>RefSeq Size:</b>	2035 bp
<b>RefSeq ORF:</b>	1665 bp
<b>Locus ID:</b>	13850
<b>UniProt ID:</b>	<a href="#">P34914</a>
<b>Cytogenetics:</b>	14 34.36 cM
<b>Gene Summary:</b>	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]