

## Product datasheet for **MR205005**

### **Efnb2 (NM\_010111) Mouse Tagged ORF Clone**

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Efnb2 (NM_010111) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Efnb2
Synonyms:	ELF-2; Epl5; Eplg5; Htk-L; LERK-5; Lerk5; NLERK-1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR205005 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGC**

ATGGCCATGGCCCGGTCCAGGAGGGACTCTGTGTGGAAGTACTGTTGGGGACTTTTGATGGTTTTGTGCA  
GAACTGCGATCTCCAGATCGATAGTTTTAGAGCCTATCTACTGGAATTCCTCGAACTCCAATTTCTACC  
CGGACAAGGCCTGGTACTATACCCACAGATAGGAGACAAATTGGATATTATTTGCCCAAAGTGGAAGTCT  
AAAAGTGTGGCCAGTATGAATATTATAAAGTTTATATGGTTGATAAAGACCAAGCAGACAGATGCACAA  
TTAAGAAGGAGAATACCCCGCTGCTCAACTGTGCCAGACCAGACCAAGATGTGAAATTCACCATCAAGTT  
TCAAGAATTCAGCCCTAACCTCTGGGGTCTAGAATTTCAAGAACAAGATTACTACATTATATCTACA  
TCAATATGGGTCTTTGGAGGGCCTGGATAACCAAGGAGGGAGGGGTGTGCCAGACAAGGCCATGAAGATCC  
TCATGAAAGTTGGACAAGATGCAAGTTCTGCTGGATCAGCCAGGAATCACGGTCCAACAAGACGTCCAGA  
GCTAGAAGCTGGTACAAATGGGAGAAGTTCAACAACAAGTCCCTTTGTGAAGCCAATCCAGGTTCTAGC  
ACCGATGGCAACAGCGCGGGGCTTCCGGAACAATCTCCTGGGTTCCGAAGTGGCCTTATTCGACAGGGA  
TCGCATCAGGATGCATCATCTTCATCGTCATCATCACTTTGGTGGTGTCTGCTCAAGTACCGCAG  
GAGACACCGCAACAACACTCTCCACAGCACACGACCAAGTGTCTCTCAGCACACTGGCCACGCCCAAGCGA  
GGTGGCAACAACATGGCTCGGAGCCCAAGTACGTTATCATACCACTAAGGACTGCAGACAGCGTCTTCT  
GCCCCGCACTACGAGAAGGTCAGCGGGGACTATGGGCACCCGGTGTACATCGTGCAGGAGATGCCCCCACA  
GAGTCCTGCCAACATTTACTACAAGGTC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



[View online »](#)

**Protein Sequence:** >MR205005 protein sequence  
 Red=Cloning site Green=Tags(s)

MAMARRRDSVWKYCWGLLMVLCRTAISRSIVLEPIYWNSSNSKFLPGQGLVLYPQIGDKLDIICPKVDS  
 KTVGQY EYKVMVDKDQADRCTIKKENTPLLNCARPDQDVKFTIKFQEFSPNLWGLEFQKNKDYYIIST  
 SNGSLEGLDNQEGGVCQTRAMKILMKVGQDASSAGSARNHGPTRRPELEAGTNGRSSTTSPFVKPNPGSS  
 TDGNSAGHSGNNLLGSEVALFAGIASGCIIFIVIIITLVVLLKYYRRHRKHSPQHTTTLSTLATPKR  
 GGNNNGSEPSDVIPLRTADSVFCPHYEKVSGDYGHPVYIVQEMPPQSPANIYYKV

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_010111

**ORF Size:** 1008 bp

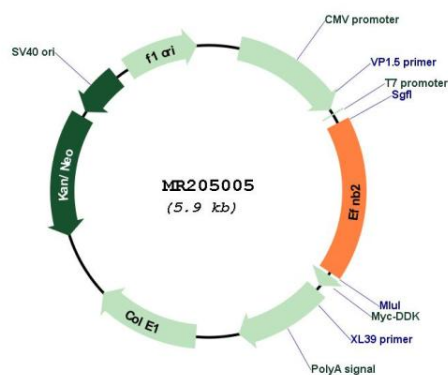
**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of 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.

<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>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<u>NM_010111.6</u>
<b>RefSeq Size:</b>	4319 bp
<b>RefSeq ORF:</b>	1011 bp
<b>Locus ID:</b>	13642
<b>UniProt ID:</b>	<u>P52800</u>
<b>Cytogenetics:</b>	8 3.42 cM
<b>MW:</b>	37.2 kDa
<b>Gene Summary:</b>	<p>Cell surface transmembrane ligand for Eph receptors, a family of receptor tyrosine kinases which are crucial for migration, repulsion and adhesion during neuronal, vascular and epithelial development. Binds promiscuously Eph receptors residing on adjacent cells, leading to contact-dependent bidirectional signaling into neighboring cells. The signaling pathway downstream of the receptor is referred to as forward signaling while the signaling pathway downstream of the ephrin ligand is referred to as reverse signaling. Binds to receptor tyrosine kinase including EPHA4, EPHA3 and EPHB4. Together with EPHB4 plays a central role in heart morphogenesis and angiogenesis through regulation of cell adhesion and cell migration. EPHB4-mediated forward signaling controls cellular repulsion and segregation from EFNB2-expressing cells. May play a role in constraining the orientation of longitudinally projecting axons.[UniProtKB/Swiss-Prot Function]</p>

## Product images:



Circular map for MR205005