

Product datasheet for RC222758

EMX2 (NM_004098) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids

Product Name: EMX2 (NM_004098) Human Tagged ORF Clone

Tag: Myc-DDK

Symbol: EMX2

Mammalian Cell Ne

Selection:

Neomycin

Vector:pCMV6-Entry (PS100001)E. coli Selection:Kanamycin (25 ug/mL)

ORF Nucleotide >RC222758 representing NM_004098

Sequence: Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC

GCCGCGATCGCC

ATGTTCCAGCCGGCGCCCAAGCGCTGCTTCACCATCGAGTCGCTGGTGGCCAAGGACAGTCCCCTGCCCG
CCTCGCGCTCCGAGGACCCCATCCGTCCCGCGGCACTCAGCTACGCTAACTCCAGCCCCATAAATCCGTT
CCTCAACGGCTTCCACTCGGCCGCCGCCGCCGCCGCCGCTAGGGGCGCTCTACTCCAACCCGGACTTGGTG
TTCGCCGAGGCGGTCTCGCACCCGCCCAACCCCGCCGTGCCAGTGCACCCGGTGCCGCCGCCGCCGCCCC
TGGCCGCCCACCCCCTACCCTCCTCGCACTCGCCACACCCCCTATTCGCCTCGCAGCAGCGGGATCCGTC
CACCTTCTACCCCTGGCTCATCCACCGCTACCGATATCTGGGTCATCGCTTCCAAGGGAACGACACTAGC
CCCGAGAGTTTCCTTTTGCACAACCGCCTGGCCCGAAAGCCCAAGCGGATCCGAACCGCCTTCTCCCCGT
CCCAGCTTCTAAGGCTGGAACACGCCTTTGAGAAGAATCACTACGTGGTGGGCGCCCGAAAGGAACAAGTTCAAA
AGGCAGAAGCTCAGCCTCACGGAAACTCAGGTAAAAGTATGGTTTCAGAACCGAAGAACAAAGTTCAAA
AGGCAGAAGCTGGAGGAAGAAGGCTCAGATTCGCAACAAAAGAAAAAAAGGGACGCACCATATTAACCGGT
GGAGAATCGCCACCAAGCAGCAGCAGATCCGGAGGAATAGACGTGACCTCAGATGAT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATTACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC222758 representing NM_004098

Red=Cloning site Green=Tags(s)

MFQPAPKRCFTIESLVAKDSPLPASRSEDPIRPAALSYANSSPINPFLNGFHSAAAAAAAGRGVYSNPDLV FAEAVSHPPNPAVPVHPVPPPHALAAHPLPSSHSPHPLFASQQRDPSTFYPWLIHRYRYLGHRFQGNDTS PESFLLHNALARKPKRIRTAFSPSQLLRLEHAFEKNHYVVGAERKQLAHSLSLTETQVKVWFQNRRTKFK RQKLEEEGSDSQQKKKGTHHINRWRIATKQASPEEIDVTSDD

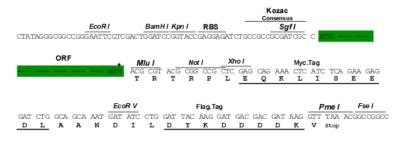
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6117 c07.zip

Restriction Sites: Sgfl-Mlul

Cloning Scheme:





 $[\]star$ The last codon before the Stop codon of the ORF

ACCN: NM_004098

ORF Size: 756 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 customercom 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: <u>NM 004098.4</u>

 RefSeq Size:
 2907 bp

 RefSeq ORF:
 759 bp

 Locus ID:
 2018

 UniProt ID:
 Q04743

 Cytogenetics:
 10q26.11

Protein Families: Druggable Genome

MW: 28.1 kDa

Gene Summary: This gene encodes a homeobox-containing transcription factor that is the homolog to the

'empty spiracles' gene in Drosophila. Research on this gene in humans has focused on its expression in three tissues: dorsal telencephalon, olfactory neuroepithelium, and urogenetial system. It is expressed in the dorsal telencephalon during development in a low rostral-lateral

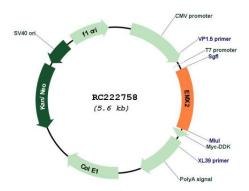
to high caudal-medial gradient and is proposed to pattern the neocortex into defined

functional areas. It is also expressed in embryonic and adult olfactory neuroepithelia where it

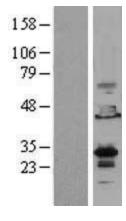
complexes with eukaryotic translation initiation factor 4E (eIF4E) and possibly regulates mRNA transport or translation. In the developing urogenital system, it is expressed in epithelial tissues and is negatively regulated by HOXA10. Alternative splicing results in multiple transcript variants encoding distinct proteins.[provided by RefSeq, Sep 2009]



Product images:



Circular map for RC222758



Western blot validation of overexpression lysate (Cat# [LY401323]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC222758 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).