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Product datasheet for RG222758

EMX2 (NM_004098) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	EMX2 (NM_004098) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	EMX2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence:

>RG222758 representing NM_004098
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGTTCCAGCCGGCGCCCAAGCGCTGCTTCACCATCGAGTCGCTGGTGGCCAAGGACAGTCCCCTGCCCG
CCTCGCGCTCCGAGGACCCCATCCGTCCCGCGGCACTCAGCTACGCTAACTCCAGCCCCATAAATCCGTT
CCTCAACGGCTTCCACTCGGCCGCCGCCGCCGCCGCCGGTAGGGGCGTCTACTCCAACCCGGACTTGGTG
TTCGCCGAGGCGGTCTCGCACCCGCCCAACCCCGCCGTGCCAGTGCACCCGGTGCCGCCGCCGCACGCCC
TGGCCGCCCACCCCCTACCCTCCTCGCACTCGCCACACCCCCTATTCGCCTCGCAGCAGCGGGATCCGTC
CACCTTCTACCCCTGGCTCATCCACCGCTACCGATATCTGGGTCATCGCTTCCAAGGGAACGACACTAGC
CCCGAGAGTTTCCTTTTGCACAACGCGCTGGCCCGAAAGCCCAAGCGGATCCGAACCGCCTTCTCCCCGT
CCCAGCTTCTAAGGCTGGAACACGCCTTTGAGAAGAATCACTACGTGGTGGGCGCCGAAAGGAAGCAGCT
GGCACACAGCCTCAGCCTCACGGAAACTCAGGTAAAAGTATGGTTTCAGAACCGAAGAACAAAGTTCAAA
AGGCAGAAGCTGGAGGAAGAAGGCTCAGATTCGCAACAAAAGAAAAAAGGGACGCACCATATTAACCGGT
GGAGAATCGCCACCAAGCAGGCGAGTCCGGAGGAAATAGACGTGACCTCAGATGAT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG222758 representing NM_004098
Red=Cloning site Green=Tags(s)

MFQPAPKRCFTIESLVAKDSPLPASRSEDPIRPAALSYANSSPINPFLNGFHSAAAAAAGRGVYSNPDLV
FAEAVSHPPNPAVPVHPVPPPHALAAHPLPSSHSPHPLFASQQRDPSTFYPWLIHRYRYLGHRFQGNDTS
PESFLLHNALARKPKRIRTAFSPSQLLRLEHAFEKNHYVVGAERKQLAHSLSLTETQVKVWFQNRRTKFK
RQKLEEEGSDSQQKKKGTHHINRWRIATKQASPEEIDVTSDD

TRTRPLE - GFP Tag - V

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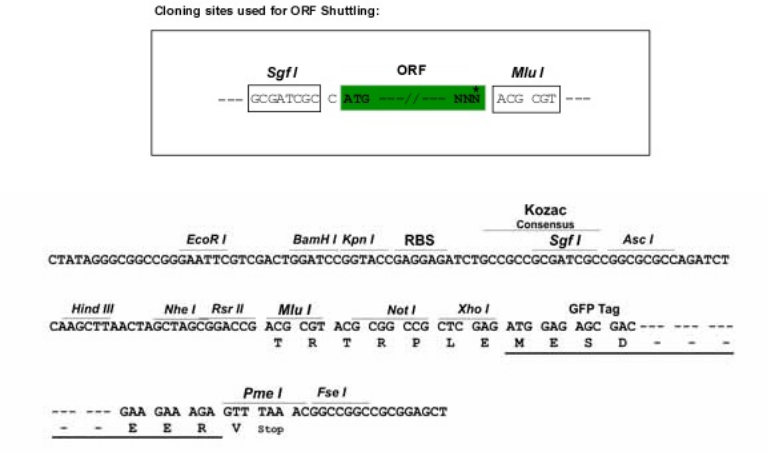
Restriction Sites: SgfI-MluI

Cloning Scheme:



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 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

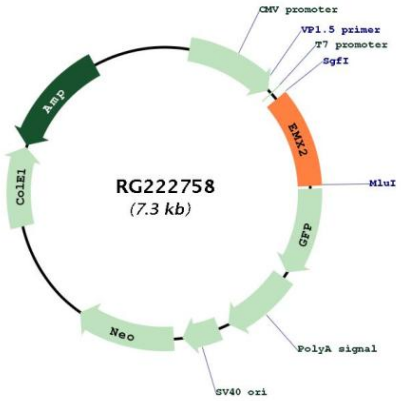
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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:	NM_004098.4
RefSeq Size:	2907 bp
RefSeq ORF:	759 bp
Locus ID:	2018
UniProt ID:	Q04743
Cytogenetics:	10q26.11
Protein Families:	Druggable Genome
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 RG222758