

Product datasheet for **MR210087**

Phactr4 (NM_175306) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Phactr4 (NM_175306) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Phactr4
Synonyms:	3110001B12Rik; AI527228; AW495572; C330013F19Rik; mKIAA4120; N28169
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

**ORF Nucleotide
Sequence:**

>MR210087 representing NM_175306
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGAAGACCCATCGGAAGAAGCAGAGCAGCCCTCTGGAGACCCAGGCATGGGCATGGACAGTGTGGAAG
 CAGGGGACACAACACCTCCACCAAAAAGGAAAAGCAAGTTCTCAGCGTTAGGCAAGATCTTCAAGCCGTG
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ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
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Protein Sequence: >MR210087 representing NM_175306
Red=Cloning site Green=Tags(s)

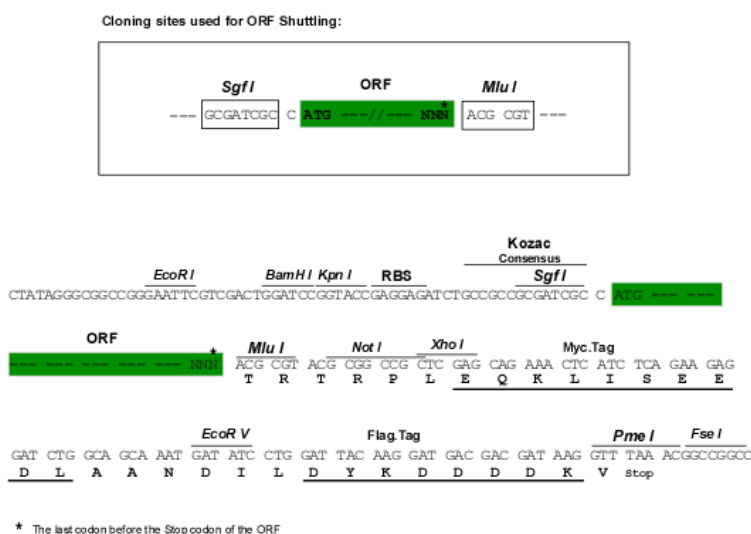
MEDPSEAEQPSGDPGMGDSVEAGDTTPPTKRKSKFSALGKIFKPWKWRKKSSDKFKETSEVLERKIS
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SPLVPAKTFQIVPEVEFSSSSDLFQDISQQEDQKTEVPKKIQDQSFGESHIPSRPLPLHIRIQQALTS
PLPVTPLLEGTHRAHSLLFENSDFSSEDGTGLGRTRSLPITIEMLKVPDDEEEQTCPFVEDVTSTSATP
SLPLCLREEEKESDSDSEGPPIKYRDEEEDDDDESHQSALANRVKRKDTLAMKLSSRPSEPETNLNSWR
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RKILRFNEYVEVTDADHYDRRADKPWTKLTPADKAAIRKELNEFKSSEMEVHVDSKHFTRYHRP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mm9097_c05.zip

Restriction Sites: Sgfl-MluI

Cloning Scheme:



ACCN: NM_175306

ORF Size: 2082 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_175306.4](#), [NP_780515.2](#)

RefSeq Size: 4585 bp

RefSeq ORF: 2085 bp

Locus ID: 100169

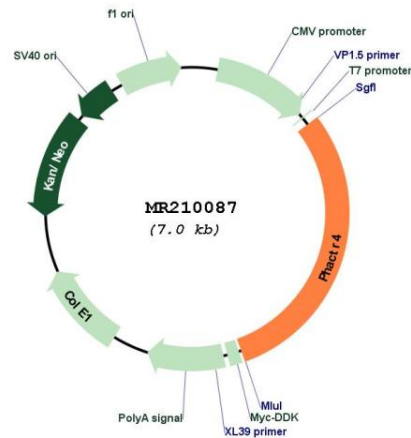
UniProt ID: [Q501J7](#)

Cytogenetics: 4 D2.3

MW: 76.6 kDa

Gene Summary:

Regulator of protein phosphatase 1 (PP1) required for neural tube and optic fissure closure, and enteric neural crest cell (ENCCs) migration during development. Acts as an activator of PP1 by interacting with PPP1CA and preventing phosphorylation of PPP1CA at 'Thr-320'. During neural tube closure, localizes to the ventral neural tube and activates PP1, leading to down-regulate cell proliferation within cranial neural tissue and the neural retina. Also acts as a regulator of migration of enteric neural crest cells (ENCCs) by activating PP1, leading to dephosphorylation and subsequent activation of cofilin (COF1 or COF2) and repression of the integrin signaling through the RHO/ROCK pathway.[UniProtKB/Swiss-Prot Function]

Product images:


Circular map for MR210087