

## Product datasheet for MR211767

### Phlpp (BC059254) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Phlpp (BC059254) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Phlpp
Synonyms:	SCOP, mKIAA0606
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>MR211767 representing BC059254 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCCGCGATCGCC

ATGCAGTTGCCAGTGAACCGATGGACAAGACGACAGGTCATTCTGTGCGGGACGTGCTTGATAGTGTGCT  
CCGTGAAAGACAGCGTGAGTGGGAAGATGCATGTCCTGCCCTCATTGGTGGAAAAGTGGAGGAAGTGAA  
AAAGCACCAGCACTGTTTAGCGTTCAGCTCTTCGGGGCCTCAAAGCCAGACTTACTACATCTGCTTTGAT  
ACTTTCACGGAGTACTTACGGTGGCTGCGCAAGTCTCCAAGGTTGCATCACAGCGTATAAGCTCAGTAG  
ACCTCTCCTGTTGTAGCCTTGAACATCTGCCTGCCAACCTCTTTTACAGCCAAGACCTTACTCATCTCAA  
CTTAAACAGAATTCCTAAGGCAAACCCACCTCCAGCTGCCAGAGGACTTGGTGAAGTCAAAGG  
TTCACCAAATTGAAGAGCCTTAACCTTTCCAATAACCACCTAGGAGCCTTCCGTCAGCAGTCTGCAGCA  
TTCCAACCCTAGCAGAGCTGAATGTATCTTGAATGCCCTGCGAGAAGTCCCAGCAGCTGTTGGAGATAT  
GCAGAAGTGCAGACGTTTCTGCTGGATGGAAATTTCTCCAGTCCCTCCTGCTGAAGTGGAGAGCATG  
CACCAGCTCAGCTATCTGGGTCTTTCTTAATGAATTCAGTACATTCCAGAGGATTTGGAGAAGCTGA  
CTGCTGTGGATAAGCTGTGTATGGCTGGAACTGTGTGGAGACCCTCAGACTACAGGCCTTAAGAAGAAT  
GCCTCATATTAACATGTGGACCTAAGACTGAACATACTCAGAAAAGCTTATGGCAGATGAGGTGGACTTT  
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GATGTCTCAAGAACTGCCTAGAAAAGTGTGCTGAGTGGGTATGTGAAAGCCGAAATTAGAAGTTTGG  
ATATTGGCCATAATCAAATATGTGAATTCCTGCCCGCTGTTTGTAAATAGTAGTCTCCGAAATTGCT  
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ATCCTACACATGGCCTATAACCGGCTTCAGAGCTTCCCGCAAGTAAAATGGCAAACTGGAGGAAGTGG



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AAGAAATTGATATCAGTGGGAATAAGCTGAAAGCCATCCCCACAACAATCATGAACTGCAGACGCATGCA  
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CCTCCGAGATGAGTAGTGAGGTGGGCTCCACAGCCTCTGATGAGCCCCGTCTGGAGTCTGAATGAGAG  
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TTGAGGGGGTGTTCAGCAACGGCAGCCGGTTGAGGTGGAAGTAGACATCCAATGCAGCAGGGCCAAGGA  
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GCACTTCAAATGGATCACCTGCCAGACTGTTACGATACACCGCTA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR211767 representing BC059254  
 Red=Cloning site Green=Tags(s)

MQLPVNRWTRRQVILCGTCLIVSSVKDSVSGMKMHVPLIGGKVEEVKKHQHCLAFSSSGPQSQTYYICFD  
 TFTEYLRWLRQVSKVASQRISVDLSCCSLEHLPANLFYSQDLTHLNLKQNFRLRQTPLPAARGLGELQR  
 FTKLKSLNLSNNHLGAFPSAVCSIPTLAELNVSCNALREVPAAVGDMQNLQTFLLDGNFLQSLPAELES  
 HQLSYLGLFFNEFTDIPEVLEKLTAVDKLCMAGNCVETLRLQALRRMPHIKHVDLRLNILRKLMADEVDF  
 VQHVTVLQDLRDNKLGDLDMIFNNIEVLHCERNQLVTLNVCGYFLKALYASSNELAQLDVPVVPNYLSYM  
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 QHNQITELPPNLLMKADSLRFLNASANKLETLPATLSEETSSILQELYL TNNCLTDKCVPLLTGHPRLK  
 ILHMAYNRLQSFPAKMAKLEELIDISGNLKAIPPTIMNCRMRHTVIAHSNCEIEVFPEVMQLPEVKC  
 VDLSCNELSEITLPENLPPKQELDLTGNPRLALDHKSLELLNIRCFKIDQPSAGDASGAPAVWSHGTY  
 EASGVKNKLCVAALSVNNFRDNREALYGVFDGDRNVEVPYLLQCTMSDILAEELQKTKNEEYMVNTFIV  
 MQRKLGTAGQKLGA AVLCHIKPDPVDLGGSTLT SANVGKQTVL CRNGKPLSL SRSYIMSCEEERKRI  
 KQHKAIITEDGK VNGVTESTRILGYTFLHPSVVRPHVQS VLL TPQDEFF ILGSKGLWDSLIDEAVEAV  
 RNVDPALAAAKKLC TLAQSYGCHDSISAVVQLSVTEDSFCCCEL SAGGSMPPPSPGIFPPSVNMV KDR  
 PSDGLGVPSSSSGMASEISSELSTSEMSSEVGSTASDEPPSGVLNESSPAYPNEQRCMLHPVCLSNFQR  
 QLSATFSSAFSDNGLSDDEEPIEGVFSNGSRVEVEVDIHC SRAKEKERQQHLLQVPAEASDEGIVISA  
 NEDESGLSKKADFSAVGTIGRRRANGSVAPQERSHNVIEVAADAPLRKPGGYFAAPAQDPDDQFIIPPE  
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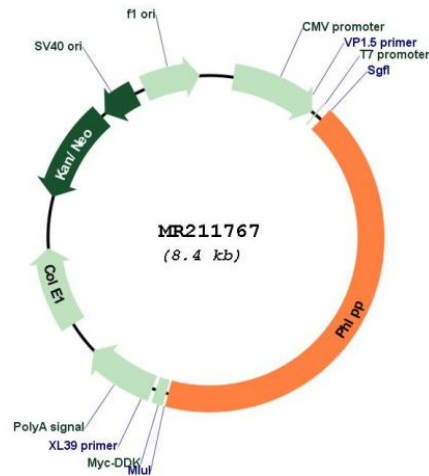
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



**Plasmid Map:**


**ACCN:** BC059254

**ORF Size:** 3546 bp

**OTI Disclaimer:** 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:** [BC059254.1](#)

**RefSeq Size:** 4783 bp

**RefSeq ORF:** 3548 bp

**Locus ID:** 98432

**Cytogenetics:** 1 E2.1

**MW:** 175.3 kDa

**Gene Summary:**

Protein phosphatase involved in regulation of Akt and PKC signaling. Mediates dephosphorylation in the C-terminal domain hydrophobic motif of members of the AGC Ser/Thr protein kinase family; specifically acts on 'Ser-473' of AKT2 and AKT3, 'Ser-660' of PRKCB and 'Ser-657' of PRKCA (By similarity). Isoform 2 seems to have a major role in regulating Akt signaling in hippocampal neurons (By similarity). Akt regulates the balance between cell survival and apoptosis through a cascade that primarily alters the function of transcription factors that regulate pro- and antiapoptotic genes. Dephosphorylation of 'Ser-473' of Akt triggers apoptosis and suppression of tumor growth. Dephosphorylation of PRKCA and PRKCB leads to their destabilization and degradation. Dephosphorylates STK4 on 'Thr-387' leading to STK4 activation and apoptosis. Dephosphorylates RPS6KB1 and is involved in regulation of cap-dependent translation. Inhibits cancer cell proliferation and may act as a tumor suppressor. Dephosphorylates RAF1 inhibiting its kinase activity. May act as a negative regulator of K-Ras signaling in membrane rafts (By similarity). Involved in the hippocampus-dependent long-term memory formation (PubMed:17382888). Involved in circadian control by regulating the consolidation of circadian periodicity after resetting (PubMed:20080691). Involved in development and function of regulatory T-cells (PubMed:21498666). [UniProtKB/Swiss-Prot Function]