

Product datasheet for **MC224335**

Phlpp2 (NM_001122594) Mouse Untagged Clone

Product data:

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| Product Type: | Expression Plasmids |
| Product Name: | Phlpp2 (NM_001122594) Mouse Untagged Clone |
| Tag: | Tag Free |
| Symbol: | Phlpp2 |
| Synonyms: | AI481772; C130044A18Rik; Phlpp1 |
| Vector: | pCMV6-Entry (PS100001) |
| E. coli Selection: | Kanamycin (25 ug/mL) |
| Cell Selection: | Neomycin |
| Fully Sequenced ORF: | >MC224335 representing NM_001122594 Red=Cloning site Blue=ORF Orange=Stop codon |

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**GCGATCGCC**

ATGGGGGAGGTGGAGCCCGTGCCCGGGGCCGCTGGAGCCCCGGAGCCACCTGAAGCGGCGGCCTC
GCCGGCCCGGAGGATTCGGGTCTAAAGAAAATATGAAACACAATGGGAGCAGAACTGTTTGAATAG
AAGAAGTAGGTTTGGTTCCCGAGAAAGAGACTGGCTAAGAGAAGATGTGAAGAGAGGCTGTGTTACCTT
TATGGAGCAGACAGCACCCTGCCACTACAACCACCTCCTCCTCCTCCTCCTCCTCCTCCTTCTGATT
TACATCTTGTCCTTTGCACAGTAGAGACACCAGCGTCAGAAAATATGTGCTGGAGAGGGAAGAAAAGCCT
CTATCTACAGTTCATGGAGATCTGGTCAGGAGACTGGAGCCCTCTGAACGGCCTCTCCAGATTGTTAC
GATTACTTATCCAGGCTGGGTTTGAAGATCCCGTGCGCATACAGGAGGAGGCTACGAACCCTGACCTCA
GCTGTATGATTCGATTTTATGGTAAAAACCATGCCAGATGGATCATCTGGATCGAATCCTACTGTCTGG
CATCTATAATGTACGCAAAGGAAAAACCCAGCTGCACAAATGGGCTGAGCGCCTCGTTGTTCTCTGTGGT
ACCTGCCTTATTGTTTCCCTCAGTGAAGGATTGTCAAACCTGGAAAGATGCACATTTTCCCGCTGGTTGGGG
GAAAGATAGAAGAAGTGAAGCGCCGCGCAGCACTCCCTTTCAGCTCAGCTGGAGCCAAAGCTCAGAG
CTATCATGTACGCTTTGAGACTTTGGCTGAGTACCAGAGATGGCAACGGCAGGCGTCTAAGGTGGTGTCTG
CAGCGGATGAGCACTGTGGACCTCTCATGCTACAGCCTTGAAGAGTTTCTGAGCATCTCTTCTACAGCC
AAGACATCACCTACCTCAACCTGCGGCACAACCTCATGCAGCTAGAAAAGACCAGGGGGCCTTGACACACT
CCACAAATTTTCTCAACTGAAGGGCCTGAACCTGTCCTAATAAACTTGGACTGTTTCTGTGCTGCTG
TGTGAGATTTCTACCCTGACTGAGCTCAGCCTTCTTGTAAATGGATTTTCATGACTTGCCAAGTCAGATTG
GTAATTTGCTAAATCTTCAGACCCTCAGCCTCGACGGCAACGGCCTCACGGCTCTGCCAGATGAGTTGGG
AAACCTGCGGCAGCTCACTTCTCTGGGAATTTCTTCAACGATTTTCGTACATCCCTGAAGTTTGGAG
AAACTTACCATGTTAGATAAAGTGGCTATGGCAGGAAACCGTTTGGAGGTCTGAACCTGGGGGCACTGA
CCAGGATGAGCCAGGTCAGCAGCTGGATCTGAGGATGAACCACTTGAACCGGTGATTACTGAAAATAT
GGAAGGAAATAAACATATCACGCACATGGATTTGCGGGACAATCAGTTGACTGATTTGGACCTTAGCTCC
TTATGTAGCTTGGAGCAGCTGCACTGTGAGCGGAACAGCTGAGGGAGCTGACACTCAGCGGCTTCTCC



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TTCGAACCCTCTACGCCAGTTGGAACAGGCTGACGGCAGTGAATGTGTACCCAGTGCCAGCCTGCTCAC
 TTCTTTGGAGCTCTCCAAAACCTTGTGGAGTGTGCCCTGACTGGGCCTGTGAAGCAAAAAAGCTGGAA
 ATACTAGACATAAGCCACAATCTTCTTACAGAGGTCCCATGAGAATTCTGAGTAGTCTGAGTCTTCGGA
 AACTGATGGTAGGACACAATCACATCCATGTCTTCTGCACTGGTGGAGCACATTCCTCGAGGTCT
 GGATATCCAGCATAAACTCTCTCCAGGCTGCCGGACACGCTCTTCTCAAGGCCTTAAATCTCAGGTAC
 TTGAATGCATCTGCAAAATAGTCTGGAGTCTTGCCTTCTGCGTGTGCTGGAGAGGAGTCTGAGTGTGC
 TGCAGCTGCTGTACCTGACCAGCAACCTTCTGACAGATCAGTGCATACCAGTTTTGGTCGGCACCCACA
 CCTGCGAGTTCTGCACCTTGCAAAACAACAGCTCCAGACCTTCCCTGCAAGCAAGCTAAATAAACTGGAG
 CAGCTGGAAGAGCTGAATCTAAGTGGAAACAACTTACAGCTATCCCCACAACCATAGCCAACTGCAAAA
 GGCTGCACACCCTTGTGCGCCATGCCAACAAACATCAGCATCTTCCAGAGATCCTGCAGCTGCCTCAGAT
 TCAGTTTTGTAGACCTGAGTTGCAATGACTTGACAGAAATCCTAATTCCAGAAGCTCTGCCTGCTACTTTA
 CAAGACCTTGATCTGACAGGAAATACAAATCTGGTCTGGAACATAAGACTTTGGACATGTTTAGCCACA
 TCACAGCCCTGAAGATTGATCAGAAGCCTTGGCCAGCCACAGACTCTGCAGTTACATCAACCTTCTGGAG
 CCATGGCCTGGCCGAGATGGCAGGGCAGAGGAATAAACTCTGTGTGTCTGCCCTGGCTATGGATAACTTT
 GCAGAGGGTGTGGGAGCTGTCTACGGCATGTTTGTGGGGACCGAATGAAGAACTCCCTCGTCTGCTGC
 AGTGTACAATGGCAGATGTGCTTTTGAAGAAGTACAGCACTCAACAAATGACACAGTTTTTCATGACCAA
 TACCTTCTTGGTATCTCACAGGAAATTAGGAATGGCTGGCCAGAAGCTGGTTCTTCGGCTCCTGTGC
 TATATTGACCTGACACTGCCGACCCAACAAGTAGCTTTAGCTTGACTGTAGCCAATGTTGGCATGTGCC
 AAGCTGTCTGTGCCGAGGTGGGAAGCCAGTACCTCTTTCTAAAGTCTTCAGCTTGGAGCATGACCCAGA
 GGAGGCTCAGAGGGTGAAGACCAGAAAGCCATCATAACAGAGGACAACAAGGTGAACGGAGTAACTGC
 TGCACCCGGCTGCTGGGTGCACATACCTTACCCATGGATCCTCCCAAGCCCCACATAGCTTCCACTC
 CACTTACCATTCAAGATGAATTGCTGATTTTGGGAAACAAGCACTGTGGAACTTGTATATCTAGA
 AGCTGTCAATGCAGTACGTACGTGCAAGACCCACTAGCTGTGTAAGAAGCTGTGCACATTAGCCAG
 AGCTACGGTTGTGAGGACAACGTGGGGGCAATGGTGGTTTATTTGAATATTGGTGAAGAAGCTGTACCT
 GTGAAATGAATGGGCTCACCTTCCAGGCCTGTGGGATTTGCTTCAACTGCAGCCCTCAAGGATACTCC
 CAAGCCAACCACTCCCTCCTCCAGTAGTGGGATTGCCTCCGAGTTCAGCAGTGAGATGTCCACCTCAGAG
 GTGAGCAGTGAAGTGGGCTCCACGGCTCGGATGAGCACAACACTGTGGGCTGGAGGCGAGCTTGTCTGC
 CCAGGCCAGAGAGGCGTGCAGTCTGCACCCAGCGTCTCCGAGGGGTGTTCCAGCGCCAGCCTTCTTG
 TGCTACTTTTTCCAGCAATCAGTCTGACAATGGCCTGGACAGTACGATGACCAGCCTGTTGAAGGAGTC
 ATAACCAACGGCAGCAGGGTTGAAGTAGAGGTAGACATCCATTGCTGCCGAGGCAGAGAGCCAGAGAGCT
 CCCCTCCGCTCCCGAAGAACTCTTCCAACGCTGTTTCCAGAGGAGCGTGTAGAGGGCGGGGTTTGGGAT
 CCGAAGACAGAACAGTGTCAACAGTGGTATACTTCTGCCAGCGAACAGAGACAAGATGGAGCTGCAGAAG
 TCTCCCTCCACTTCTTGTCTGTATGGAAGAACTCTCCAATGGCTCCATTGTGCCCTAGAGGACAGCC
 TGAACCTCATTGAGGTGGCCACAGAAGCACCCAAAAGGAAAACCTGGCTACTTTGTGCCCCCACTCAGCT
 GGAACAGAGGATCAGTTTGTCTCCCTCGAGACCTGGAAGAGGAAGTGAAGGAGCAGATGAAGCAGCAC
 CAGGAGGGCAGGCTGAGCCCGAGCCCCGGGAGAGGAGCGGACAGAGCCCTGGAGGAGTTTGATACAG
 CACTGTGA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites:

Sgfl-Mlul

ACCN:

NM_001122594

Insert Size:

4068 bp

OTI Disclaimer:

Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

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| 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: | <ol style="list-style-type: none">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_001122594.2, NP_001116066.2</u> |
| RefSeq Size: | 7854 bp |
| RefSeq ORF: | 4068 bp |
| Locus ID: | 244650 |
| UniProt ID: | <u>Q8BXA7</u> |
| Cytogenetics: | 8 D3 |
| 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 AKT1, 'Ser-660' of PRKCB isoform beta-II and 'Ser-657' of PRKCA. 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 decreases cell proliferation. Also controls the phosphorylation of AKT3. 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. Dephosphorylation of PRKCA and PRKCB leads to their destabilization and degradation. Dephosphorylates RAF1 inhibiting its kinase activity (By similarity).[UniProtKB/Swiss-Prot Function] |