

## Product datasheet for **SC337971**

### PHLPP2 (NM\_001289003) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	PHLPP2 (NM_001289003) Human Untagged Clone
Tag:	Tag Free
Symbol:	PHLPP2
Synonyms:	PHLPPL; PPM3B
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_001289003, the custom clone sequence may differ by one or more nucleotides

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ATGAAACGCAATGGGAGCAGAAATTGTTTGAATAGGAGAAGTAGGTTTGGTTCTCGAGAAAGAGACTGGC
TAAGAGAAGATGTAAGAGAGGGCTGTGTTTACCTTTATGGAGCAGACACTACCACTGCCACTACAACCAC
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ACACCAGCATCAGAAATATGTGCTGGAGAGGGAAGAGAAAGTCTTTATTTACAGTTCATGGAGACTGG
TCAGGAGACTGGAACCTACTGAACGACCTTTCAGATCGTTTATGATTACTTATCCAGGCTGGGATTTGA
TGATCCTGTGCGCATACAGGAGGAGGCTACAAATCCTGACCTCGGCTGTATGATTCGATTTTATGGTGAA
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TAGAGTGTGCCCTGACTGGCCTGTGAAGCAAAGAAGATAGAAGTATTAGATGTGAGCTATAATCTTCT
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CACAGAGTTCCCGTGAGAATTCTGAGTAGCTTGTAGTCTTAGAAAAGCTGATGCTGGGACACAATCATGTG  
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 GGTAGAGGTGGAAGTAGACATCCACTGCTGCAGGGGGAGGGATCTGGAGAACTACCCCCCTCATAGAG  
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 CCTCTATGGGAAGAACTCTCAATGGCTCTATTGTGCCCTAGAGGACAGCCTGAACCTCATTGAAGTG  
 GCCACAGAAGTGCCAAGAGGAAAAGTGGCTATTTGCTGCCCCACTCAGATGGAACAGAGGACCAGT  
 TTGTTGTGCTCATGACCTGGAAGAAGAAGTGAAGGAACAAATGAAACAGCACCAGGACAGCCGGCTCGA  
 GCCTGAGCCCATGAAGAGGATCGACCGAGCCCGGAGGAGTTCGACACAGCACTA**TGA**

**Restriction Sites:**

SgfI-MluI

**ACCN:**

NM\_001289003

**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).

**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\\_001289003.1](#), [NP\\_001275932.1](#)

RefSeq Size: 8463 bp

RefSeq ORF: 3771 bp

Locus ID: 23035

UniProt ID: [Q6ZVD8](#)

Cytogenetics: 16q22.2

**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 (PubMed:20513427). Dephosphorylates RPS6KB1 and is involved in regulation of cap-dependent translation (PubMed:21986499). 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 (PubMed:24530606).[UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (2) differs in the 5' UTR and lacks an in-frame exon in the central coding region, compared to variant 1. The encoded isoform (2) is shorter, compared to isoform 1. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.