

## Product datasheet for **RC222429**

### PHOS (PDC) (NM\_002597) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	PHOS (PDC) (NM_002597) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PDC
Synonyms:	MEKA; PHD; PhLOP; PhLP
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>RC222429 representing NM_002597 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGGAAGAAGCCAAAAGCCAAAGTTTGGAGGAAGACTTTGAAGGACAGGCCACACATACAGGACCCAAAG  
GAGTAATAAATGATTGGAGAAAGTTTAAATTAGAGAGTCAAGACAGTGATTCAATTCACCTAGCAAGAA  
GGAGATTCTCAGGCAAAATGTCTTCTCCTCAGAGTAGGAATGGCAAAGATCAAAGGAACGAGTCAGCAGA  
AAGATGAGCATTCAAGAATATGAACTAATCCATAAAGAGAAAGAGGATGAAAACCTGCCTTCGTAAATACC  
GTAGACAGTGTATGCAGGATATGCACCAGAAGCTGAGTTTTGGCCTAGATATGGTTTTGTGTATGAGCT  
GGAAACTGGAAAGCAATTCCTAGAAACAATTGAAAAGGAACTGAAGATCACCACAATTGTTGTTACATT  
TATGAAGATGGTATTAAGGGTTGTATGCTCTAAACAGTAGTTTAAACATGCCTTGACGAGAAATACCCTA  
TAGTTAAGTTTTGTAAAATAAAGCTTCGAATACAGGTGCTGGGGACCGCTTTTCCTTAGATGTACTTCC  
TACTGCTCATCTATAAAGGTGGGAACTCATAAGCAATTTTATTAGTGTGCTGAACAGTTTGTCTGAA  
GAATTTTTGCTGGGGATGTGGAGTCTTTCCTAAATGAATATGGGTTACTACCTGAAAGAGAGGTACATG  
TCCTAGAGCATACCAAAATAGAAGAAGAAGATGTTGAA

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC222429 representing NM\_002597  
Red=Cloning site Green=Tags(s)

MEEAKSQSLEEDFEGQATHTGPKGVINDWRKFKLESQSDSIPPSKKEILRQMSSPQSRNGKDSKERVSR  
 KMSIQEYELIHKEKEDENCLRKYRRQCMQDMHQKLSFGPRYGFVYELETGKQFLETIEKELKITTIVVHI  
 YEDGIKGDALNSSLTCLAAEYPIVKFKIKASNTGAGDRFSLDVLPTLLIYKGGELISNFI SVAEQFAE  
 EFFAGDVESFLNEYGLLPEREVHVLEHTKIEEEDVE

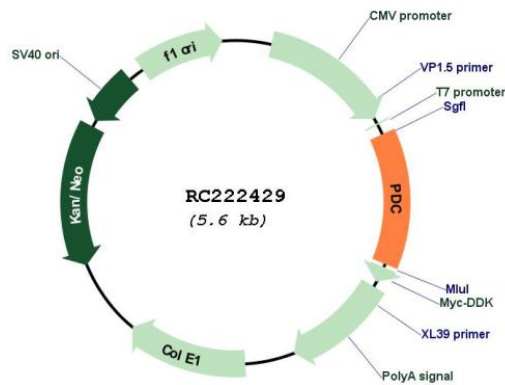
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**Plasmid Map:**



**ACCN:** NM\_002597  
**ORF Size:** 738 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](mailto: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\\_002597.5](#)

**RefSeq Size:** 1246 bp

**RefSeq ORF:** 741 bp

**Locus ID:** 5132

**UniProt ID:** [P20941](#)

**Cytogenetics:** 1q31.1

**Domains:** Phosducin

**Protein Families:** Druggable Genome

**Protein Pathways:** Olfactory transduction

**MW:** 28.2 kDa

**Gene Summary:**

This gene encodes a phosphoprotein, which is located in the outer and inner segments of the rod cells in the retina. This protein may participate in the regulation of visual phototransduction or in the integration of photoreceptor metabolism. It modulates the phototransduction cascade by interacting with the beta and gamma subunits of the retinal G-protein transducin. This gene is a potential candidate gene for retinitis pigmentosa and Usher syndrome type II. Alternatively spliced transcript variants encoding different isoforms have been identified. [provided by RefSeq, Jul 2008]