

Product datasheet for **RG222429**

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:	TurboGFP
Symbol:	PDC
Synonyms:	MEKA; PHD; PhLOP; PhLP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG222429 representing NM_002597 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGAAGAAGCCAAAAGCCAAAGTTTGGAGGAAGACTTTGAAGGACAGGCCACACATACAGGACCCAAAG
GAGTAATAAATGATTGGAGAAAGTTTAAATTAGAGAGTCAAGACAGTGATTCAATCCACCTAGCAAGAA
GGAGATTCTCAGGCAAATGTCTTCTCCTCAGAGTAGGAATGGCAAAGATCAAAGGAACGAGTCAGCAGA
AAGATGAGCATTCAAGAATATGAACTAATCCATAAAGAGAAAGAGGATGAAAACGCCTTCGTAATACC
GTAGACAGTGTATGCAGGATATGCACCAGAAGCTGAGTTTGGCCTAGATATGGGTTTGTGTATGAGCT
GGAAACTGGAAAGCAATTCCTAGAAACAATTGAAAAGGAACTGAAGATCACCAATGTTGTTACATT
TATGAAGATGGTATTAAGGGTTGTGATGCTCTAAACAGTAGTTTAAACATGCCTTGACGAGAAATACCTA
TAGTTAAGTTTTGTAATAAAAAGCTTCGAATACAGGTGCTGGGGACCGCTTTTCCTTAGATGTACTTCC
TACTGCTCATCTATAAAGGTGGGAACTCATAAGCAATTTTATTAGTGTGCTGAACAGTTTGTCTGAA
GAATTTTTGCTGGGATGTGGAGTCTTTCCTAAATGAATATGGGTTACTACCTGAAAGAGAGGTACATG
TCCTAGAGCATACCAAAATAGAAGAAGAAGATGTTGAA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG22429 representing NM_002597
Red=Cloning site Green=Tags(s)

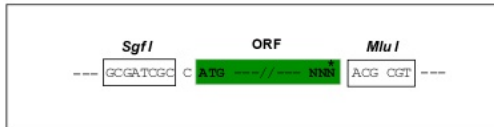
MEEAKSQSLEEDFEGQATHTGPKGVINDWRKFKLESQSDSIPPSKKEILRQMSSPQSRNGKDSKERVSR
 KMSIQEYELIHKEKEDENCLRKYRRQCMQDMHQKLSFGPRYGFVYELETGKQFLETIEKELKITTIVVHI
 YEDGIKGDALNSSLTCLAAEYPIVKFKIKASNTGAGDRFSLDVLPTLLIYKGGELISNFISVAEQFAE
 EFFAGDVESFLNEYGLLPEREVHVLEHTKIEEEDVE

TRTRPLE - GFP Tag - V

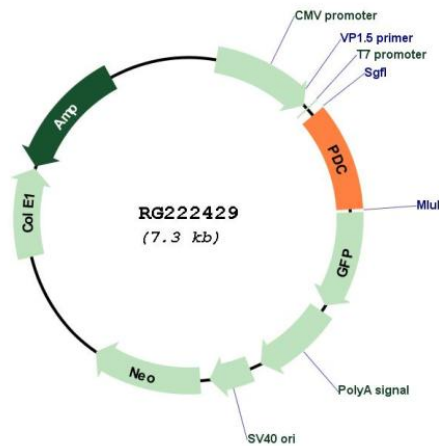
Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



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 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

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]