

## Product datasheet for **RG222192**

### PI 3 Kinase Class 2A (PIK3C2A) (NM\_002645) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	PI 3 Kinase Class 2A (PIK3C2A) (NM_002645) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	PI 3 Kinase Class 2A
Synonyms:	CPK; OCSKD; PI3-K-C2(ALPHA); PI3-K-C2A; PI3K-C2-alpha; PI3K-C2alpha
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG222192 representing NM_002645 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

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ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:**

>RG222192 representing NM\_002645  
 Red=Cloning site Green=Tags(s)

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 LNL LSLMIPSGLPELTSIQDLKYVRDALQPQTDAEATIFFTRL IESSLSGIATKFNFFIHNLAQLRFSG  
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 NKL SIIIFPLWKLPGFPNRMVLRGRTHIKDVAARKIELNSYLQSLMNASTDVAECDLVCTFFHPLLRDEKA  
 EGIARSADAGSFSPTPGQIGGAVKLSISYRNGTLFIMVMHIKDLVTEGDADPNPYVKTYLLPDNHKTSKR  
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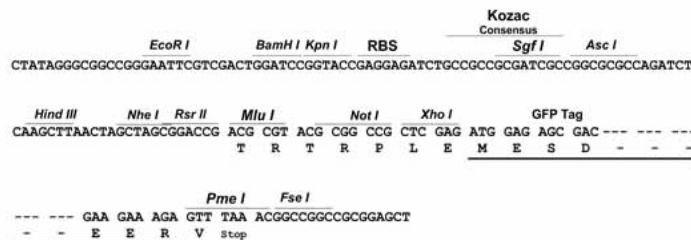
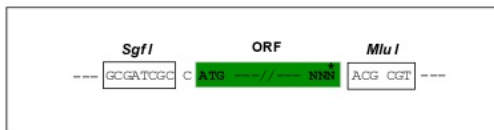
TRTRPLE - GFP Tag - V

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



<b>ACCN:</b>	NM_002645
<b>ORF Size:</b>	5058 bp
<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_002645.1</a> , <a href="#">NP_002636.1</a>
<b>RefSeq Size:</b>	5061 bp
<b>RefSeq ORF:</b>	5061 bp
<b>Locus ID:</b>	5286
<b>UniProt ID:</b>	<a href="#">O00443</a>
<b>Cytogenetics:</b>	11p15.1

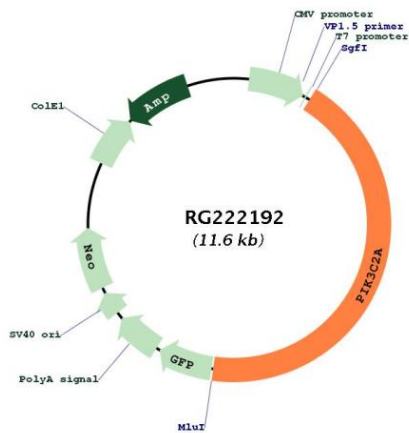
**Domains:** C2, PI3K\_rbd, PI3\_PI4\_kinase, PI3Ka, PX, PI3K\_C2

**Protein Families:** Druggable Genome

**Protein Pathways:** Inositol phosphate metabolism, Metabolic pathways, Phosphatidylinositol signaling system

**Gene Summary:** The protein encoded by this gene belongs to the phosphoinositide 3-kinase (PI3K) family. PI3-kinases play roles in signaling pathways involved in cell proliferation, oncogenic transformation, cell survival, cell migration, and intracellular protein trafficking. This protein contains a lipid kinase catalytic domain as well as a C-terminal C2 domain, a characteristic of class II PI3-kinases. C2 domains act as calcium-dependent phospholipid binding motifs that mediate translocation of proteins to membranes, and may also mediate protein-protein interactions. The PI3-kinase activity of this protein is not sensitive to nanomolar levels of the inhibitor wortmanin. This protein was shown to be able to be activated by insulin and may be involved in integrin-dependent signaling. [provided by RefSeq, Jul 2008]

**Product images:**



Circular map for RG222192