

Product datasheet for **SC309022**

PI 3 Kinase Class 2A (PIK3C2A) (NM_002645) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PI 3 Kinase Class 2A (PIK3C2A) (NM_002645) Human Untagged Clone
Tag:	Tag Free
Symbol:	PI 3 Kinase Class 2A
Synonyms:	CPK; OCSKD; PI3-K-C2(ALPHA); PI3-K-C2A; PI3K-C2-alpha; PI3K-C2alpha
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL6</u>
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene sequence for NM_002645 edited
GGCCTTGCTATTTTGAAGCTACAAGAAAAAATAGAGGAAGGAGTTGGTCTTTTTA
GTGGACATGGCTCAGATATCTAGCAACAGCGGATTTAAAGAATGCCATCTTCACATCCG
GAACCAACAAGAGCAAAAAGATGTGGACAAAGAAGCATTACAGATGGAAGCAGAGGCT
TTAGCAAAACTGCAAAAGGATAGACAAGTGACTGACAATCAGAGAGGCTTTGAGTTGTCA
AGCAGCACCAGAAAAAGCACAGGTTTATAACAAGCAGGATTATGATCTCATGGTGT
CCTGAATCAGATCCCAAAAAGAGCATTAGATATTGATGTAGAAAAGCTCACCAAGCT
GAACCTTGAGAACTATTGCTGGATGACAGTTTCGAGACTAAAAAACACCTGTATTACCA
GTTACTCTATTCTGAGCCCTTCTTTTCAGCACAGCTCTATTTAGACCTACTATTCAG
AGAGGACAGTGGCCACCTGGATTACCTGGGCTTCCACTTATGCTTTACCTTCTATTTAT
CCTTCTACTTACAGTAAACAGGCTGCATTCCAAAATGGCTTCAATCCAAGATGCCCACT
TTTCCATCTACAGAACCTATATATTTAAGTCTTCCGGGACAATCTCCATATTTCTCATAT
CCTTTGACACCTGCCACACCTTTCATCCACAAGGAAGCTTACCTATCTATCGTCCAGTA
GTCAGTACTGACATGGCAAACTATTTGACAAAATAGCTAGTACATCAGAATTTTTAAAA
AATGGGAAAGCAAGGACTGATTTGGAGATAACAGATTCAAAAGTCAGCAATCTACAGGTA
TCTCCAAAGTCTGAGGATATCAGTAAATTTGACTGGTTAGACTTGGATCCTCTAAGTAAG
CCTAAGGTGGATAATGTGGAGGTATTAGACCATGAGGAAGAGAAAAATGTTTCAAGTTTG
CTAGCAAAGGATCCTTGGGATGCTGTTCTTCTTGAAGAGAGATCGACAGCAAATTTGCAT
CTTGAAAGAAAGGTGAATGGAAAATCCCTTTCTGTGGCACTGTTACAAGAAGCCAGTCT
TTAAATATTCGAACAACCTCAGCTTGCAAAAGCCAGGGCCATATATCTCAGAAAAGACCCA
AATGGGACCAGTAGTTTGCCAACCTGGAAGTTCTTCTTCTTCAAGAAGTTGAAGTACAGAAT
GAGGAGATGGCAGCTTTTTGTGCATCCATTACAAAATTGAAGACCAAATTTCCATATACC
AATCACCCGACAAACCCAGGCTATTTGTTAAGTCCAGTCACAGCGCAAAGAAACATATGC
GGAGAAAATGCTAGTGTGAAGGTCTCCATTGACATTGAAGGATTTTCAGCTACCAGTFACT
TTTACGTGTGATGTGAGTTCTACTGTAGAAATCATTATAATGCAAGCCCTTTGCTGGGTA
CATGATGACTTGAATCAAGTAGATGTTGGCAGCTATGTTCTAAAAGTTTGTGGTCAAGAG
GAAGTGTGCAGAATAATCATTGCCTTGAAGTCAAGCATATTTCAAACTGTGCAAAA



[View online »](#)

TGGGACACAGAAATTAGACTACAACCTTTGACCTTCAGTGAATGTGTCAAAATCTGGCC
CGAACAGCAGAAGATGATGAAACACCCGTGGATTTAAACAAACACCTGTATCAAATAGAA
AAACCTTGCAAAGAAGCCATGACGAGACACCCTGTTGAAGAACTTTAGATTCTTATCAC
AACCAAGTAGAACTGGCTCTTCAAATGAAAACCAACACCCGAGCAGTAGATCAAGTAATT
AAAGCTGTAAAGAAAACTGTAGTGCTTTAGATGGTGTGAGACTCTTGCCATTACAGAA
TCAGTAAAGAAGCTAAAGAGAGCAGTTAATCTTCAAGGAGTAAAAGTGTGATGTGACT
TCTTTGTTGGAGGAGAAGACACTAGCAGGAGTTCAACTAGGGGCTCACTTAATCCTGAA
AATCCTGTTCAAGTAAGCATAAAACCAATTAAGTCAAGCAATTTATGATCTTCTCAGACTC
CATGCAAATCTGGTAGGAGTCTACAGACTGTGCCCAAAGTAGCAAGAGTGTCAAGGAA
GCATGGACTACAACAGAGCAGCTCCAGTTACTATTTTTGCTGCTCATGGAATTTCAAGT
AATTGGGTATCAAATTATGAAAAATACTACTTGATATGTTCACTGTCTCACAATGGAAAG
GATCTTTTTAAACCTATTCAATCAAAGAAGTTGGCACTTACAAGATTTCTTCTATCTT
ATTAATGGGATGAACTAATCATTTTTCTATCCAGATATCACAATTGCCATTAGAATCA
GTTCTTACCTTACTCTTTTTGGAATTTAAATCAGAGCAGTGGAAAGTCCCTGATTCT
AATAAGCAGAGAAAGGGACCAGAAGCTTTGGGCAAAGTTCTTTACCTCTTTTTGACTTT
AAACGGTTTTTAACATGTGGAACATAACTTCTATATCTTTGGACTTCATCACATACAAAT
TCTGTTCTGGAACAGTTACAAAAAAGGATATGTCATGGAAAGAATAGTGCTACAGGTT
GATTTTCTTCTCCTGCATTTGATATTATTTATACAACCTCTCAAGTTGACAGAAGCATT
ATACAGCAACATAACTTAGAAACACTAGAGAATGATATAAAAGGGAAACTTCTTGATATT
CTTCATAAAGACTCATCACTTGGACTTTCTAAAGAAGATAAAGCTTTTTTATGGGAGAAA
CGTTATTATTGCTTCAAACACCCAAATTGTCTTCTAAATATTAGCAAGCGCCCAAAC
TGGAAATGGGTTAATCTTGCCAAAACCTACTCATTGCTTACCAGTGGCCTGCATTGTAC
CCACTAATTGCATTGGAACCTTCTGATTCAAATTTGCTGATCAGGAAGTAAGATCCCTA
GCTGTGACCTGGATTGAGCCATTAGTGATGATGAGCTAACAGATCTTCTCCACAGTTT
GTACAAGCTTTGAAATATGAAATTTACTTGAATAGTTCATTAGTGAATTCCTTTTGTCC
AGGGCATTGGGAAATATCCAGATAGCACACAATTTATATTGGCTTCTCAAAGATGCCCTG
CATGATGTACAGTTTAGTACCCGATACGAACATGTTTTGGGTGCTCTCCTGTCAGTAGGA
GGAAAACGACTTAGAGAAGAACTTCTAAAACAGACGAACTTGTACAGCTTTTAGGAGGA
GTAGCAGAAAAAGTAAGGCAGGCTAGTGGATCAGCCAGACAGGTTGTTCTCAAAGAAGT
ATGGAACGAGTACAGTCTTTTTTCAAAAAATAAATGCCGTCTCCCTCTCAAGCCAAGT
CTAGTGGCAAAAAGTAATAATTAAGTGTGTTCTTCTTCAAGTCTAATGCTGTCCCC
CTAAAAGTCACAATGGTGAATGCTGACCCTATGGGAGAAGAAATTAATGTCATGTTAAG
GTTGGTGAAGATCTTCGGCAAGATATGTTAGCTTTACAGATGATAAAGATTATGGATAAG
ATCTGGCTTAAAGAAGGACTAGATCTGAGGATGGTAATTTCAAATGTCTCTCAACTGGC
AGAGATCGAGGCATGGTGGAGCTGGTCTGCTCCGATACCCTCAGGAAAAATCCAAGTG
GAATATGGTGTGACAGGATCCTTTAAAGATAAACCCTTGACAGTGGCTAAGGAAATAC
AATCCCTCTGAAGAAGAATATGAAAAGGCTTCAGAGAACCTTATCTATTCTGTGCTGGA
TGCTGTGTAGCCACCTATGTTTTAGGCATCTGTGATCGACACAATGACAATATAATGCTT
CGAAGCACGGGACACATGTTTACATTGACTTTGGAAAGTTTTTGGGACATGCACAGATG
TTTGGCAGCTTCAAAGGGATCGGGCTCCTTTTGTGCTGACCTCTGATATGGCATATGTC
ATTAATGGGGGTGAAAAGCCACCATTCGTTTTAGTTGTTTGTGGACCTCTGCTGTCAG
GCCTACAACCTTGATAAGAAGCAGACAAACCTTTTTCTAACCTCCTTCACTGATGATT
CCTTCAGGGTTACCAGAACTTACAAGTATTCAAGATTTGAAATACGTTAGAGATGCACTT
CAACCCCAAACACTACAGACGACAGAAAGCTACAATTTCTTTACTAGGCTTATTGAATCAAGT
TTGGGAAGCATTGCCACAAAGTTAACTTCTTCATTACAACCTTGCTCAGCTTCGTTTTT
TCTGGTCTTCTTCTAATGATGAGCCATCCTTTTCAATTTTCACTAAAACATACTCCTTT
AGACAAGATGGTGAATCAAGGAAGTCTCTGTTTTTACATATCATAAGAAATACAACCA
GATAAACATTATATTTATGTAGTCCGAATTTTGGGGAAGGACAGATTGAACCATCATTT
GTCTTCCGAACATTTGACGAATTTCAAGAACTTACAATAAGCTCAGTATTATTTTTCCA
CTTTGGAAGTTACCAGGCTTTCTAATAGGATGGTTCTAGGAAGAACACATAAAAAGAT
GTAGCAGCCAAAAGGAAAATTGAGTTAAACAGTTACTTACAGAGTTTGTGATGAATGCTTCA
ACGGATGTAGCAGAGTGTGATCTTGTGTTGACTTTCTCCACCCTTACTTCGTGATGAG

```
AAAGCTGAAGGGATAGCTAGGTCTGCAGATGCAGGTTCCCTTCAGTCCACTCCAGGCCAA
ATAGGAGGAGCTGTGAAATTATCCATCTTACCGAAATGGTACTCTTTTCATCATGGTG
ATGCATATCAAAGATCTTGTACTGAAGATGGAGCTGACCCAAATCCATATGTCAAAACA
TACCTACTTCCAGATAACCACAAAACATCCAAACGTAAAACAAAATTTACAGAAAAACG
AGGAATCCGACATTCAATGAAATGCTTGTATACAGTGGATATAGCAAAGAAACCCTAAGA
CAGCGAGAACTTCAACTAAGTGTACTCAGTGCAGAATCTCTGCGGGAGAATTTTTCTTG
GGTGGAGTAACCCTGCTTTGAAAGATTTCAACTTGAGCAAAGACGGTTAAATGGTAT
CAGCTGACTGCGCAACATACTTGAAACTAGTGAATGTCTGAGCTTTGGAAGCATGAAC
AGTTATAAACGTGCATGCATACATGCACACACACAGAC
```

Restriction Sites:	Please inquire
ACCN:	NM_002645
Insert Size:	5200 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).
OTI Annotation:	The ORF of this clone is found to be a perfect match to NM_002645.1.
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:	NM_002645.1 , NP_002636.1
RefSeq Size:	5061 bp
RefSeq ORF:	5061 bp
Locus ID:	5286
UniProt ID:	O00443
Cytogenetics:	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]