

## Product datasheet for **SC118487**

### PI 3 Kinase Class 3 (PIK3C3) (NM\_002647) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	PI 3 Kinase Class 3 (PIK3C3) (NM_002647) Human Untagged Clone
Tag:	Tag Free
Symbol:	PI 3 Kinase Class 3
Synonyms:	hVps34; VPS34; Vps34
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL5</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene ORF within SC118487 sequence for NM\_002647 edited (data generated by NextGen Sequencing)

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ATGGGGGAAGCAGAGAAGTTTCACTACATCTATAGTTGTGACCTGGATATCAACGTCCAG
CTTAAGATAGGAAGCTTGGAAAGGAAGAGAGAACAAAAGATTATAAAGCTGTCTGGAA
GACCCAATGTTGAAGTTCTCAGGACTATATCAAGAGACATGCTCTGATCTTTATGTTACT
TGTC AAGTTTTTGCAGAAGGGAAGCCTTTGGCCTTGCCAGTGAGAACATCCTACAAGCA
TTTAGTACAAGATGGAAGTGAATGAATGGCTGAAACTACCAAGTAAAATACCCGTGACCTG
CCCAGGAATGCCAAGTGGCCCTCACCATATGGGATGTGTATGGTCCCGAAAAGCAGTG
CCTGTAGGAGGAACAACGGTTTTCGCTCTTTGAAAATACGGCATGTTTCGCCAAGGGATG
CATGACTTGAAAGTCTGGCCTAATGTAGAAGCAGATGGATCAGAACCACAAAACTCCT
GGCAGAACAAAGTAGCACTCTCTCAGAAGATCAGATGAGCCGTCTTGCCAAGCTCACCAA
GCTCATCGACAAGGACACATGGTAAAAGTAGATTGGCTGGATAGATTGACATTTAGAGAA
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TTTTCGATGTGCAAGTGTGATGATAAGGAATATGGTATTGTTTATTATGAAAAGGACGGT
GATGAATCATCTCCAATTTTAACAAGTTTTGAATTAGTAAAAGTTCCTGACCCCAAGATG
TCTATGGAGAATTTAGTTGAGAGCAAACACCACAAGCTTGCCCGAGTTTAAAGAAGTGA
CCTTCTGACCACGATCTGAAACCAATGCTGCCACGAGAGATCAGTTAAATATTATTGTG
AGTTATCCACCAACCAAGCAACTTACATATGAAGAAACAAGATCTTGTGTTGGAAGTTAGA
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GAGGACTCCTTGGAGCTGTTATCCTCTCATTACACCAACCAACTGTGAGGCGTTATGCT
GTTGCCCGGTGCGACAGGCCGATGATGAGGATTTGTTGATGTACCTATTACAATTGGTC
CAGGCTCTCAAAATGAAAATTTTGGATGATATAAAGAATGGATTGGAACCTACCAAGAA
GATAGTCAGAGTTCAGTGTGCAAAAATGTGTCAAATTCTGGAATAAATTCTGCAGAAATA
GATAGCTCCCAAATTAACCAAGCCCTTCTTCAAGTCTTTCACCTCCTCCTGCATCA
AAAAAAAAGAAGTTCAGATGGCGAAAATCTGGAACAAGATCTCTGTACCTTCTTGATA
TCGAGAGCCTGCAAAAACCAACTGGCTAATTTTATACTGGTATGTGATAGTGAA
TGTGAAGATCAAGATACTCAGCAGAGAGATCCAAAGACCCATGAGATGTACTTGAACGTA
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TTGCTGGCTGCACAACAGACATTTGTAGATCGGTTGGTGCATCTAATGAAGGCAGTACAA
CGCGAAAGTGAAATCGTAAGAAAAGAATGAGAGACTACAGGCATTGCTTGGAGATAAT
GAAAAGATGAATTTGTCAGATGTGGAACCTATCCCGTTGCCTTTAGAACCCCAAGTGAAA
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GAAAATCTGGACTTGAAATTGACACCTTATAAGGTGTTAGCCACCAAGTACAAAACATGGC
TTCATGCAGTTTATCCAGTCAGTTCCTGTGGCTGAAGTTCCTGATACAGAGGGAAGCATT
CAGAACTTTTTTAGAAAATATGCACCAAGTGAAGTGGCCAAAATGGGATTAGTGCTGAG
GTGATGGACACTTACGTTAAAAGCTGTGCTGGATATTGCGTGATCACCTATATACTTGG
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GACTTTGGATATATTTTGGGTCGGGATCCAAAGCCTTCTCCTCCCAATGAAGCTGAAT
AAAGAAATGGTAGAAGGAATGGGGGCACACAGAGTGAGCAGTACCAAGAGTTCCGTA
CAGTGTTACACGGCTTCTCCTCCACTGCGAAGGATTCTAATCTGATTTTGAAGTGTGTT
TCCTTGATGGTTGATGCAAACTTCCAGATATTGCACTTGAACCAGATAAACTGTGAAA
AAGGTTCAAGATAAATCCGCTTAGACCTGTCCGATGAAGAGGCTGTGCATTACATGCAG
AGTCTGATTGATGAGAGTGTCCATGCTCTTTTGTGTCAGTGGTGAACAGATTACAAG
TTTGCCAGTACTGGAGAAAATGA
    
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Clone variation with respect to NM\_002647.2

**5' Read Nucleotide Sequence:**

>OriGene 5' read for NM\_002647 unedited  
 GGGCAGAAATTTGGTATACGACTCACTATAGGGCGGCCGCGNAATTCGCACGAGGGTTCA  
 TTTATGTTGTTTTCTGTACCTAAGTTCCCGCTGTAGGTGGTACCTTTGCAGACGGTGC  
 GATGGGGGAAGCAGAGAAGTTTCACTACATCTATAGTTGTGACCTGGATATCAACGTCCA  
 GCTTAAGATAGGAAGCTTGAAGGGAAGAGAGAACAAAAGAGTTATAAAGCTGCCTGGA  
 AGACCAATGTTGAAGTTCTCAGGACTATATCAAGAGACATGCTCTGATCTTTATGTTAC  
 TTGTCAAGTTTTTGCAGAAGGGAAGCCTTTGGCCTTGCCAGTGAGAACATCCTACAAAGC  
 ATTTAGTACAAGATGGAAGTGAATGAATGGCTGAACTACCAGTAAAATACCCTGACCT  
 GCCCAGGAATGCCCAAGTGGCCCTCACCATATGGGATGTGTATGGTCCCGAAAAGCAGT  
 GCCTGTAGGAGGAACAACGGTTTCGCTCTTTGAAAATACGGCATGTTTCGCAAGGGAT  
 GCATGACTTGAAAGTCTGGCCTAATGTAGAAGCAGATGGATCAGAACCCACAAAACCTCC  
 TGGCAGAACAAAGTAGCACTCTCTCAGAAGATCAGATGAGCCGCTTGCCAAGCTCACCAA  
 AGCTCATCGACAAGGACACATGGTAAAAGTAGATTGGCTGGATAGATTGACATTTAGAGA  
 AATAGAAATGATAAATGAGAGTAAAAACGAAGTTCTAATTTTCATGTACCTGATGGTTGA  
 ATTTTCGATGTGCAAGTGTGATGATAAGGGATATGGTATTGTTTATTATGAAAAGGACGG  
 TGATGAATCATCTNCAATTTTAAACAGTTTGAATANTGAAAGTTCCTGACCCCAATGT  
 CTATGAGAATTAGTTGAGAG

**3' Read Nucleotide Sequence:**

>OriGene 3' read for NM\_002647 unedited  
 CGCGGCCCAATCTANAGTCGAGTTTTTTTTTTTTTTTTTTTTTTTCTCATTCTTAATTT  
 ATTAACAATGTATACATTTGAAAAAATATACAATATTTCAAACAAGCCCTTCAAGACT  
 ATATTTAAGCAATGACATCCAAGGAAGCAGAAGTCAAGTACCATGTAATATTTGGAAAAT  
 ATGGTAACTTGAAGATTAAGATTTCTTCTCCTTGTGCTGTTACTCTGAAGTCTCCAATATA  
 CAAAGGTTGCTCCTAACGTGGTTTTCTATTGAGCCAAGCATCTTGATGGTCAATCCCA  
 GTTTCATTTTCTCCAGTACTGGGCAAACTTGTAATCTGTTCCACCCTGCAGCAAAAAG  
 AGCATGGACACTCTCATCAATCAGACTCTGCATGTAATGCACAGCCTCTTCATCCGACAG  
 GTCTAAGCGGAATTTATCCTGAACCTTTTTACAGTTTTATCTGGTTCAAGTGAATATC  
 TGGAAATGTTTGCATCAACCATCAAGGAAAACAAGTTCAAATCAGATTAGAATACCTTCC  
 CAGTGGAGGAAAGCCGGTAACACTGTTTACGGAAGTCTGGTACTGCTCACTCTGTGT  
 GCCCCCCATTCCTTTTACCATTCTTTATTCACCTTCATTGGTGGAGGAAAGAGCTTTGG  
 ATCCCGACCCAAATATTTCCAAGTCTATCGGGAAAAGTTGCCTGTTTTGCTACAAAAGGT  
 ATCCAGTGGCTGTCTACTCCAGTTTTTTGGATCACCCACTTTCCCCCCTCTTACGA  
 AGTGTCTTGACCTCCCTTTTCCATTTGCCCTTCTCACTGGGCTTTTTTAAAAAGTCTG  
 AAGCTCCTCGTTCAAGAATTTCCCAGGAATGACGTAATGCTTAACCTGTTTGTCCGG  
 GGGTAACCTTAAGGGCA

**Restriction Sites:**

NotI-NotI

**ACCN:**

NM\_002647

**Insert Size:**

3420 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).

**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).

<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_002647.2</a> , <a href="#">NP_002638.2</a>
<b>RefSeq Size:</b>	3083 bp
<b>RefSeq ORF:</b>	2664 bp
<b>Locus ID:</b>	5289
<b>UniProt ID:</b>	<a href="#">Q8NEB9</a>
<b>Cytogenetics:</b>	18q12.3
<b>Domains:</b>	PI3_PI4_kinase, PI3Ka, PI3K_C2
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Inositol phosphate metabolism, Metabolic pathways, Phosphatidylinositol signaling system, Regulation of autophagy
<b>Gene Summary:</b>	<p>Catalytic subunit of the PI3K complex that mediates formation of phosphatidylinositol 3-phosphate; different complex forms are believed to play a role in multiple membrane trafficking pathways: PI3KC3-C1 is involved in initiation of autophagosomes and PI3KC3-C2 in maturation of autophagosomes and endocytosis. Involved in regulation of degradative endocytic trafficking and required for the abscission step in cytokinesis, probably in the context of PI3KC3-C2 (PubMed:20643123, PubMed:20208530). Involved in the transport of lysosomal enzyme precursors to lysosomes. Required for transport from early to late endosomes (By similarity).[UniProtKB/Swiss-Prot Function]</p> <p>Transcript Variant: This variant (1) represents the longer transcript and encodes the longer isoform (1).</p>