

## Product datasheet for **RN208704**

### **Pi4k2b (NM\_001005883) Rat Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Pi4k2b (NM_001005883) Rat Untagged Clone
Tag:	Tag Free
Symbol:	Pi4k2b
Synonyms:	MGC94512
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**Fully Sequenced ORF:** >RN208704 representing NM\_001005883  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGCCCGAGCCGCCCGGGACATCATGGCGGAGGCTGCGAGGCCACCCGCCCTCGGAGGATGAGGACG  
 AGGAGCGGGAGCCGCTGCTGCCTCGTGTGCTTGGGCCAGCCGCGGAGGGCGCGCCCGGAGCGCCGT  
 AAGGCTGCAGGCGGACCAGGGCGCGCTGTCTTCGCGAGCCGCCACCGAAGAGCCCGGTGGTGTCC  
 GAGGACCGGTGATCTCCGCGAGCTTGTCCACCGAGCTGGACCGACCCGCAACGAGTCTCAGAAACAA  
 ACACATTCTTGAAGATCCAGAATTTGCTGATGTTGACTGAAAGCAGAGCAAGCGATAGAAATGGAGT  
 TTTCCAGAGAGGATCTCTCAAGGGTCAAGTGAAGTTATTTTGTGAAGATTCTAAAAGGACTATAATT  
 GGTGTGTTAAACCCAAATCAGAAGAGCCTTATGGTCAGCTGAACCCCAAGTGGACCAAGTATGTCCACA  
 AGGTTTGTCTCCCTGCTGTTTCGGCCGAGGCTGCCTGCTTCTAACCAGGGCTACCTTTCTGAAGCCG  
 TGCTACCTGGTGATACCAAGCTTCAGCTGGCATTGTACCTAAAACAAAGGTGGTTTGGCTTGTGAGT  
 GAGACATTTAACTACAGTGCATTGACCGTGCAAATCAAGAGGCAAAAAGTATGCCTTAGAGAAAGTAC  
 CAAAAGTAGTAGAAAGTTCCATCGGATAGGACTTCTCCTAAGATTGGTTCTTTCAGCTGTTTGTGAA  
 AGATTACAAGGAGGCTGAATATTGGCTTAGGAGGTTTGAAGCCGAGCCTTGGCCGAGAACATTAGAAAA  
 CAATTTGAGTACAGTTTGAAGATTAGTGATTCTGGATTACATCATCAGAAACACAGACAGGGGAAATG  
 ATAATTGGCTAGTCAAATATGACGAGATGAAATATGCAAAGAAAATTGAAAGTGAGGAATCAAATGGAT  
 CGATGATAAACAATTGCTTATTAGAATAGCTGCAATTGACAATGGGCTAGCATTTCCCTCAAGCATCCT  
 GATGAATGGAGAGCATATCCATTTCACTGGGCTGGCTCCCTCAAGCAAAAAGTTCTTTCTGAAGAAA  
 CTCGAACTTGATTCTACCCTTTATTTCTGACATGAACTTGTCCAAGACTTGTGTGAAGATCTTTATGA  
 ACTTTTTAAGACTGACAAAGGATTTGACAGAGCTGCTTTTGAAGTCAGATGTCTGTGATGAGAGGCCAG  
 ATCTTAAACCTCACTCAGGCGCTGAGAGATGGCAAGAGTCTATGCAGCTGGCACAGATGCCATGCGTGA  
 TCGTGGAGTGCAGCAAAAGTGGTGGCCAGGGCGTGTGTACACCTGGGCAGCTCCTTTACCCAGACGGT  
 CCACTGCAGGAAGCCGTTCTTTCTCCTGGTAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** SgfI-MluI
- ACCN:** NM\_001005883
- Insert Size:** 1434 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).
- 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\\_001005883.1](#), [NP\\_001005883.1](#)

RefSeq Size: 1716 bp

RefSeq ORF: 1434 bp

Locus ID: 305419

UniProt ID: [Q5XIL2](#)

Cytogenetics: 14q11

**Gene Summary:** Together with PI4K2A and the type III PI4Ks (PIK4CA and PIK4CB) it contributes to the overall PI4-kinase activity of the cell. This contribution may be especially significant in plasma membrane, endosomal and Golgi compartments. The phosphorylation of phosphatidylinositol (PI) to PI4P is the first committed step in the generation of phosphatidylinositol 4,5-bisphosphate (PIP2), a precursor of the second messenger inositol 1,4,5-trisphosphate (InsP3). Contributes to the production of InsP3 in stimulated cells and is likely to be involved in the regulation of vesicular trafficking (By similarity).[UniProtKB/Swiss-Prot Function]