

## Product datasheet for **SC323584**

### PRPK (TP53RK) (NM\_033550) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	PRPK (TP53RK) (NM_033550) Human Untagged Clone
Tag:	Tag Free
Symbol:	PRPK
Synonyms:	BUD32; C20orf64; dj101A2; GAMOS4; Nori-2; Nori-2p; PRPK; TPRKB
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC323584 sequence for NM_033550 edited (data generated by NextGen Sequencing)

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ATGGCGGCGGCCAGAGCTACTACGCCGGCCGATGGCGAGGAGCCCGCCCGGAGGCTGAG
GCTCTGGCCGCAGCCCGGAGCGGAGCAGCCGCTTCTTGAGCGGCCTGGAGCTGGTGAAG
CAGGGTGCCGAGGCGCGGTGTTCCGTGGCCGCTTCCAGGGCCGCGCGGCGGTGATCAAG
CACCGCTTCCCAAGGGCTACCGGCACCCGGCGCTGGAGGCGCGGCTTGGCAGACGGCGG
ACGGTGCAGGAGGCCCGGCGCTCCTCCGCTGTCGCCGCGCTGGAATATCTGCCCCAGTT
GTCTTTTTGTGGACTATGCTTCCAAGTCTTATATATGGAAGAAATTGAAGGCTCAGTG
ACTGTTGAGATTATATTCAGTCCACTATGGAGACTGAAAAAAGTCCCGAGGCTCTCC
AACTTAGCCAAGACAATTGGGCAGGTTTTGGCTCGAATGCACGATGAAGACCTCATTGAT
GGTGCCCTCACCACCTCCAACATGCTCCTGAAACCCCGCTGGAACAGCTGAACATTGTG
CTCATAGACTTTGGGCTGAGTTTCATTTAGCACTTCCAGAGGATAAGGGAGTAGACCTC
TATGTCCTGGAGAAGGCCTTCTCAGTACCCATCCCAACTGAAACTGTGTTTGAAGCC
TTTCTGAAGAGCTACTCCACCTCCTCAAAAAGGCCAGGCCAGTCTAAAAAAATTAGAT
GAAGTGCCCTGAGAGGAAGAAAGAGGTCCATGGTTGGGTAG

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Clone variation with respect to NM\_033550.3  
485 a=>c;486 t=>c



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<b>5' Read Nucleotide Sequence:</b>	>OriGene 5' read for mutant NM_033550 unedited ACCGCCGTTGAGCAATGGGCGGTAGGCGGTACGGTGGGAGGTCTATATAAGCAGAGCTCGTTTAGTGAA CCGTCAGAATTTTGTAAATACGACTAACTATAGGGCGGCCGCAATTCGGCACGAGGCTGATCGGTTGGAG CTGTTGCGCCGAGCAGTCATGGCGGCGGCCAGAGCTACTACGCCGGCCGATGGCGAGGAGCCCGCCCGG AGGCTGAGGCTCTGGCCGAGCCCGGAGCGGAGCAGCCGCTTCTTGAGCGGCCTGGAGCTGGTGAAGCA GGGTGCCGAGGCGCGGTGTTCCGTGGCCGCTTCCAGGGCCGCGCGGCGGTGATCAAGCACCGCTTCCCC AAGGGCTACCGGCACCCGGCGCTGGAGGCGCGGCTTGGCAGACGGCGGACGGTGCAGAGGCCCGGCGCT CCTCCGCTGTCGCGCGCTGGATATCTGCCCCAGTTGTCTTTTTGTGGACTATGCTTCCAAGTCTTATA TATGGAGAATTGAAGGCTCAGTACTGTTCAAGATTATATTCAGTCCACTATGGAAGACTGAAAAAACC TCCCAGGTTCTCTCACTTAGCCAAGACAATTGGGCCAGTTTTGCTTCAATGCACCGAATGAAAGACCTC ATCATGGTGCCCTACCCACCTCCAACATTGCCTTCTGAGCCCCCTGGACCAGGCTGAACCATTGGTC TTATAGACTAGGCCTGATCCATCGCAGCACTCCAGAGTTTGAATTGAGACCTTATGTCTCTGGAAGGCC TTCTGATCCATCCACCATGGACTGTTTGACCCTTCGGAGGACCTCTACTCTCTCAAGCACGCATGT CAGAAATATCGAATTGCCTGGAGAAAGTCTCAGTGGTCTAGTGTAAACCAACTGGACTTCCCGA
<b>Kinase Domain Sequence:</b>	>SC323584 kinase domain raw sequence. By performing <a href="#">BLASTX</a> analysis with this sequence against NCBI reference protein database, you can confirm the presence of the kinase-deficient mutation ASCCAHTTCGTGACGCTTCAGGGCCGCGCGGCGGTGATCAAGCACCGCTTCCCCAAGGGCTACSSYWCC CGGCGCTGGAGGCGCGGCTTGGCAGACGGCGGACGGTGCAGGAGGCCCGGCGCTCTCCGCTGTCGCC CGCTGGAATATCTGCCCCAGTTGTCTTTTTGTGGACTATGCTTCCAAGTCTTATATGGAAGAAATT GAAGGCTCAGTACTGTTGAGATTATATTCAGTCCACTATGGAG
<b>Restriction Sites:</b>	Please inquire
<b>ACCN:</b>	NM_033550
<b>Insert Size:</b>	3180 bp
<b>OTI Disclaimer:</b>	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).
<b>OTI Annotation:</b>	This kinase-deficient mutant clone was generated by created by site-directed mutagenesis from the corresponding wild-type clone. See details in "Application of active and kinase-deficient kinome collection for identification of kinases regulating hedgehog signaling." <a href="#">Cell, 2008 May p536-548.</a>
<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_033550.3</a> , <a href="#">NP_291028.3</a>
<b>RefSeq Size:</b>	3384 bp

RefSeq ORF:	762 bp
Locus ID:	112858
UniProt ID:	<a href="#">Q96S44</a>
Cytogenetics:	20q13.12
Domains:	S_TKc, KOW
Protein Families:	Druggable Genome, Protein Kinase
Gene Summary:	<p>Component of the EKC/KEOPS complex that is required for the formation of a threonylcarbamoyl group on adenosine at position 37 (t(6)A37) in tRNAs that read codons beginning with adenine (PubMed:22912744, PubMed:27903914). The complex is probably involved in the transfer of the threonylcarbamoyl moiety of threonylcarbamoyl-AMP (TC-AMP) to the N6 group of A37 (PubMed:22912744, PubMed:27903914). TP53RK has ATPase activity in the context of the EKC/KEOPS complex and likely plays a supporting role to the catalytic subunit OSGEP (By similarity). Atypical protein kinase that phosphorylates 'Ser-15' of p53/TP53 protein and may therefore participate in its activation (PubMed:11546806). [UniProtKB/Swiss-Prot Function]</p>