

Product datasheet for **RC209748**

PRPK (TP53RK) (NM_033550) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PRPK (TP53RK) (NM_033550) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PRPK
Synonyms:	BUD32; C20orf64; dj101A2; GAMOS4; Nori-2; Nori-2p; PRPK; TPRKB
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC209748 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCGCGGCCAGAGCTACTACGCCGGCCGATGGCGAGGAGCCCGCCCGAGGCTGAGGCTCTGGCCG
CAGCCCGGAGCGGAGCAGCCGCTTCTTGAGCGGCCTGGAGCTGGTGAAGCAGGGTGCCGAGGCGCGCT
GTTCCGTGGCCACTTCCAGGGCCGCGCGCGGTGATCAAGCACCGCTTCCCAAGGGCTACCGGCACCCG
GCGCTGGAGGCGCGGCTTGGCAGACGGCGGACGGTGCAGGAGGCCGGGCGCTCCTCCGTCGCGCGG
CTGGAATATCTGCCCCAGTTGTCTTTTTGTGGACTATGCTTCCAAGTCTTATATATGGAAGAAATTGA
AGGCTCAGTGACTGTTTCGAGATTATATTAGTCCACTATGGAGACTGAAAAAAGTCCCGAGGCTCTCTCC
AACTTAGCCAAGACAATTGGGCAGGTTTTGGCTCGAATGCACGATGAAGACCTCATTTCATGGTGATCTCA
CCACCTCCAACATGCTCCTGAAACCCCGCTGGAACAGCTGAACATTGTGCTCATAGACTTTGGGCTGAG
TTTCATTTAGCACTTCCAGAGGATAAGGGAGTAGACCTCTATGTCTGGAGAAGGCCTTCTCAGTACC
CATCCCAACACTGAACTGTGTTTGAAGCCTTTCTGAAGACTACTCCACCTCCTCAAAAAGGCCAGGC
CAGTGCTAAAAAATTAGATGAAGTGCGCCTGAGAGGAAGAAAGAGGTCCATGGTTGGG

ACGCGTACGCGCGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC209748 protein sequence
 Red=Cloning site Green=Tags(s)

MAAARATTPADGEEPAPAEALAAARERSRFLSGLELVKQGAEARVFRGHFQGRAAVIKHRFPKGYRHP
 ALEARLGRRTVQEARALLRCRRAGISAPVVFFVDYASNCLYMEEIEGSVTVRDYIQSTMETKTPQGLS
 NLAKTIGQVLRMHDEDLIHGDLTTSNMLLKPPLEQLNIVLIDFGLSFISALPEDKGVLDLVLEKAFLLST
 HPNTETVFEAFLKSYSTS SSKKARPVLKLLDEVRLRGRKRSMVG

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6142_e06.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_033550

ORF Size: 759 bp

OTI Disclaimer: 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. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_033550.4](#)

RefSeq Size: 3384 bp

RefSeq ORF: 762 bp

Locus ID: 112858

UniProt ID: [Q96S44](#)

Cytogenetics: 20q13.12

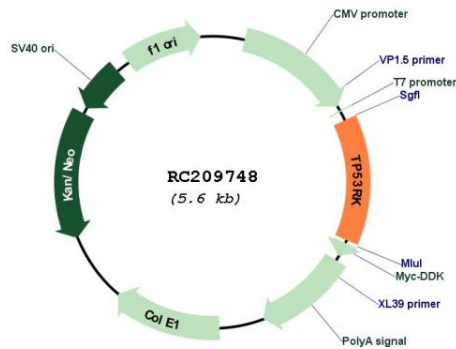
Domains: S_TKc, KOW

Protein Families: Druggable Genome, Protein Kinase

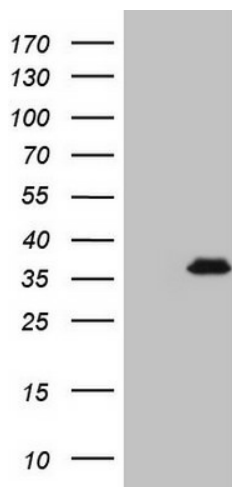
MW: 28.1 kDa

Gene Summary: 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]

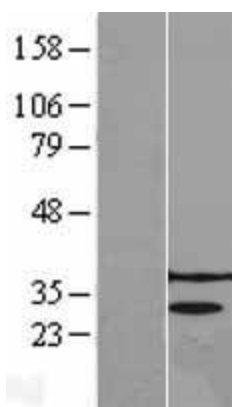
Product images:



Circular map for RC209748



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY TP53RK (Cat# RC209748, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-TP53RK (Cat# [TA808232])(1:2000). Positive lysates [LY403262] (100ug) and [LC403262] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY403262]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC209748 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).