

## Product datasheet for **RC206008**

### TPRKB (NM\_016058) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** TPRKB (NM\_016058) Human Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** TPRKB  
**Synonyms:** CGI-121; CGI121; GAMOS5  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >RC206008 ORF sequence  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCAGTTAACACATCAGCTGGACCTATTTCCGAATGCAGGGTAACCCTTCTGTTATTTAAAGATGTAA  
AAAATGCGGGAGACTTGAGAAGAAAGGCCATGGAAGGCACCATCGATGGATCACTGATAAATCCTACAGT  
GATTGTTGATCCATTTCCAGATACTTGTGGCAGCAAACAAGCAGTTCACCTCTACAACTGGGAAAAATG  
AAGACAAGAACTCTACTACTGAAATTATTTCAACCTTTCCCAATAACAATATTTAGAGGCTTTGA  
AAAAATTTGGTATCTCAGCAAATGACACTTCAATTCTAATTGTTTACATTGAAGAGGGAGAAAAACAAAT  
AAATCAAGAATACCTAATATCTCAAGTAGAAGGTCATCAGGTTTCTGAAAAATCTTCTGAAATATG  
AATATTACAGAAGTCAAAAAGATATATAAACTCTCTTCAAGAAGAAAGTATTGGGACATTATTGGATG  
CTATCATTGTAGAATGTCAACAAAAGATGTTTTA

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC206008 protein sequence  
Red=Cloning site Green=Tags(s)

MQLTHQLDLFPECRVTLFFFKDVKNAGDLRRKAMEGTIDGSLINPTVIVDPFQILVAANKAVHLYKLGKM  
KTRTLSTEIIFNLSPNNIASEALKKFGISANDTSILIVYIEEGEKQINQEYLSQVEGHQVSLKNLPEIM  
NITEVKKIYKLSQEESIGTLLDAIICRMSTKDVL

**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6320\\_f02.zip](https://cdn.origene.com/chromatograms/mk6320_f02.zip)



Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM\_016058

ORF Size: 525 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\\_016058.5](#)

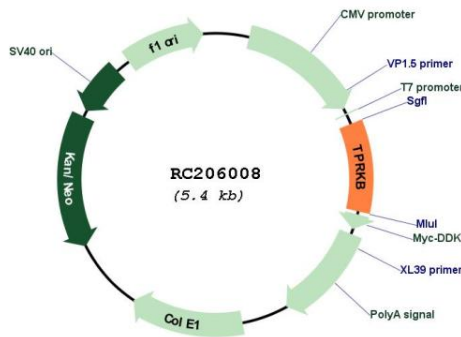
RefSeq Size: 752 bp

RefSeq ORF: 528 bp

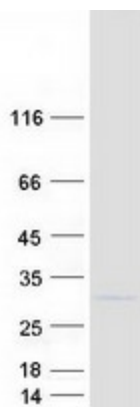
Locus ID: 51002  
 UniProt ID: [Q9Y3C4](#)  
 Cytogenetics: 2p13.1  
 MW: 19.7 kDa

**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:28805828). 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:28805828). TPRKB acts as an allosteric effector that regulates the t(6)A activity of the complex. TPRKB is not required for tRNA modification (PubMed:22912744, PubMed:28805828).[UniProtKB/Swiss-Prot Function]

**Product images:**



Circular map for RC206008



Coomassie blue staining of purified TPRKB protein (Cat# [TP306008]). The protein was produced from HEK293T cells transfected with TPRKB cDNA clone (Cat# RC206008) using MegaTran 2.0 (Cat# [TT210002]).

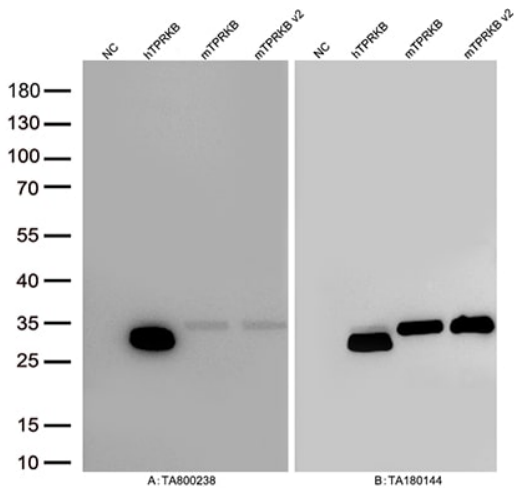


Figure A, Western blot analysis of overexpressed lysates (25ug per lane) from HEK293T cells transfected with empty plasmid ([PS100001], NC), human TPRKB plasmid (RC206008, hTPRKB), mouse TPRKB plasmid ([MR201518], mTPRKB), mouse TPRKB v2 plasmid ([MR201525], mTPRKB v2) using anti-TPRKB antibody [TA800238] (1:5000). Figure B, Western blot analysis of the same samples as figure A with anti-DDK antibody ([TA180144], 1:5000)