

Product datasheet for **RC204087**

TIGAR (NM_020375) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: TIGAR (NM_020375) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: TIGAR
Synonyms: C12orf5; FR2BP
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC204087 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCTCGCTTCGCTCTGACTGTTGTCCGGCATGGAGAAACAAGATTTAACAAGGAGAAAATAATCCAAG
 GACAAGGAGTAGATGAACCTCTTCAGAACTGGATTTAAACAAGCAGCAGCTGCTGGTATATTTCTGAA
 TAATGTGAAGTTTACTCATGCTTCTCCAGTGATCTCATGAGGACAAAGCAGACCATGCATGGAATTTG
 GAGAGAAGCAAATTTTGCAAAGATATGACGGTAAAGTATGACTCAAGACTTCGGGAAAGGAAATACGGG
 TTGTAGAAGCAAAGCGCTAAGTGAGCTGAGGGCCATGGCCAAAGCAGCCAGGGAAGAGTGCCCTGTGTT
 TACACCGCCCGGAGGAGAGACGCTGGACCAGGTGAAAATGCGTGGAATAGACTTTTTTTGAATTTCTTTGT
 CAACTAATCCTGAAAGAAGCGGATCAAAAAGAAGTATTTCCCAAGGATCTCCAAGCAACTGTCTGGAAA
 CTTCTTTGGCAGAGATATTTCTTTAGGAAAAATCACAGCTCTAAAGTTAATTCAGACAGCGGTATTCC
 AGGATTAGCAGCCAGTGTCTTAGTTGTGAGTCACGGTGCTTACATGAGAAGTCTGTTTGATTATTTCTG
 ACTGACCTTAAGTGTTCCTTACCAGCCACTCTGAGCAGATCTGAACCTTATGTCAGTCACTCCAATACAG
 GGATGAGTCTCTTATCATAAACTTTGAGGAAGGAAGAGAAGTTAAACCAACGGTTCAGTGTATTTGTAT
 GAACCTACAGGATCATCTAAATGGACTGACTGAAACTCGC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC204087 protein sequence
 Red=Cloning site Green=Tags(s)

MARFALTVVRHGGETRFNKEKIIQGQGVDEPLSETGFKQAAAAGIFLNNVKFTHAFSSDLMRKTQTMHGIL
 ERSKFCKDMTVKYDSRLRERKYGVVEGKALSELRAMAKAAREECPVFTPPGGETLDQVKMRGIDFFFEFLC
 QLILKEADQKEQFSQGSPSNCLETSLAEIFPLGKNHSSKVNSDSGIPGLAASVLVYSHGAYMRS�FDYFL
 TDLKCSLPATLSRSELSVTPNTGMSLFIIINFEEGREVKPTVQICMNLQDHLNGLTETR

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6430_b09.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_020375

ORF Size: 810 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_020375.3](#)

RefSeq Size: 8237 bp

RefSeq ORF: 813 bp

Locus ID: 57103

UniProt ID: [Q9NQ88](#)

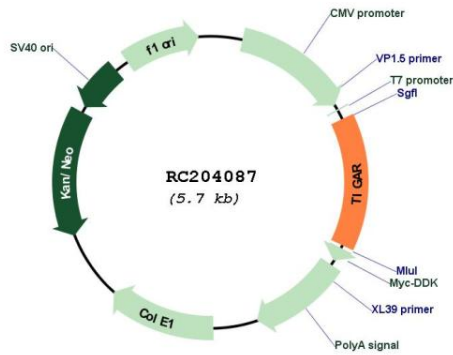
Cytogenetics: 12p13.32

Domains: PGAM

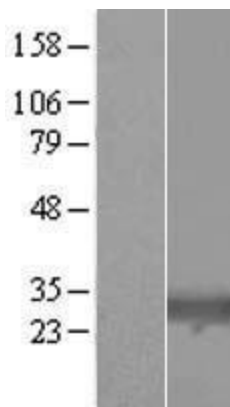
MW: 30.1 kDa

Gene Summary: This gene is regulated as part of the p53 tumor suppressor pathway and encodes a protein with sequence similarity to the bisphosphate domain of the glycolytic enzyme that degrades fructose-2,6-bisphosphate. The protein functions by blocking glycolysis and directing the pathway into the pentose phosphate shunt. Expression of this protein also protects cells from DNA damaging reactive oxygen species and provides some protection from DNA damage-induced apoptosis. The 12p13.32 region that includes this gene is paralogous to the 11q13.3 region. [provided by RefSeq, Jul 2008]

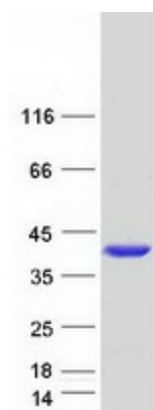
Product images:



Circular map for RC204087



Western blot validation of overexpression lysate (Cat# [LY412517]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC204087 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified TIGAR protein (Cat# [TP304087]). The protein was produced from HEK293T cells transfected with TIGAR cDNA clone (Cat# RC204087) using MegaTran 2.0 (Cat# [TT210002]).