

Product datasheet for **RC201724**

DAK (TKFC) (NM_015533) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	DAK (TKFC) (NM_015533) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	DAK
Synonyms:	DAK; NET45; TKFCD
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC201724 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGACCTCCAAGAAGCTGGTGAACCTCGGTGGCTGGCTGTGCTGATGACGCTCTTGCTGGCCTGGTGGCCT
 GCAACCCCAACCTGCAGCTCCTGCAGGGCCACCGGTGGCCCTCCGTTCTGACCTGGACAGCCTCAAGGG
 CCGGGTGGCACTGCTGTGGGGTGGGGGCTCGGCCATGAGCCTGCCCATGCTGGTTTCATAGGGAAGGGG
 ATGCTGACTGGGGTCATCGCGGGAGCTGTGTTACCTCCCGGCAGTGGGCAGCATCCTGGCAGCCATCA
 GGGCCGTGGCCAGGCCGGCACAGTGGGACGCTCCTTATCGTGAAGAACTACTGGGGATCGGCTCAA
 CTTGCGCTGGCCGGGAGCAGGCCGGGCTGAAGGCATCCCGGTGGAGATGGTGGTATTGGGGACGAC
 AGCGCCTTACTGTCCTGAAGAAGCAGGCCGGCGGGGCTGTGCGGCACGGTGTATACACAAGGTGG
 CAGGTGCTCTGGCTGAGGCTGGTGTGGGCTGGAGGAGATCGAAAGCAGGTGAACGTGGTGCCTAAGGC
 CATGGGTACCCTGGGGTGGAGCTTATCCTCCTGCAGCGTCCCTGGTTCCAAACCCACCTTCGAGCTCTCA
 GCCGACGAGGTGGAGCTGGGCTGGGGATCCACGGGGAAGCTGGTGTGCGCCGGATAAAGATGGCAACCG
 CCGATGAGATTGTGAAACTCATGCTCGACCACATGACAAAACACCACCAACCGCTCCCATGTGCTGTGCA
 GCCCGGCTCCTCAGTTGTGATGATGGTCAACAACCTGGGTGGCCTGTATTCTGGAAGTGGGCATCATA
 GCCGACGCTACCGTCCGCTCCCTGGAGGGCCGGGGTGAAGATTGCCGTGCCCTGGTGGGCACCTTCA
 TGTGACACTGGAGATGCTGGCATTCTCTCACCTCCTGCTGGTGGATGAGCCTCTCTGAAACTGAT
 AGATGCTGAAACCACTGCAGCAGCCTGGCCTAACGTGGCTGCAGTCTCCATTACTGGCGGAAGCGGAGC
 CGGGTAGCCCTGCCGAGCCCCAGGAGGCCCTGATTCCACTGCTGCAGGAGGCTCAGCCTCGAAGCGGA
 TGGCGCTGGTGTGAACGGGTGTGACACTCTCCTGGGCTGGAGAACACCTGAATGCCCTGGACCG
 GGCTGCTGGTGCAGCGCACTGTGGCACCACCCACAGCCGTGCGGCCAGAGCAATCCAGGAGTGGCTGAAG
 GAGGGCCACCCCTGCCAGCCCTGCCAGCTGCTCTCAAGTTGTCTGTCTGCTCCTGGAGAAGATGG
 GAGGCTCATCTGGGGCGCTCTATGGCCTGTTCTGACTGCGGCTGCACAGCCCTGAAGGCCAAGACCAG
 CCTCCAGCCTGGTCTGCTGCCATGGATGCCGGCTGGAAGCCATGCAGAAGTATGGCAAGGCTGCTCCA
 GGGGACAGGACTATGCTGGATTCTGTGGCAGCGGGCAGGAGCTCCAAGCCTGGAAGAGCCAGGAG
 CTGATCTGTTACAAGTCTGACCAAGCAGTCAAGAGTCCGAAGCTGCAGCCGAGGCCACCAAGAATAT
 GGAAGCTGGAGCCGAAGAGCCAGTTATATCAGCTCAGCAGGCTGGAGCAGCCAGACCCGGGGCGGTG
 GCAGCTGCTGCCATCCTCCGGCCATCTTGAGGCTTTCAGAGC

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
 TGGATTACAAGGATGACGACGATAAGGTTAA

Protein Sequence:

>RC201724 protein sequence
 Red=Cloning site Green=Tags(s)

MTSKKL VNSVAGCADDALAGLVACPNLQLLQGHRVALRSDLDSLKGRVALLSGGGSGHEPAHAGFIGKG
 MLTGVIAGAVFTSPA VGSILAAIRAVAQAGTVGTLIVKNYTGDRLNFLGAREQARAEGIPVEMVIGDD
 SAFTVLK KAGRRGLCGTVL IHKVAGALAEAGVLEEIAKQNVVAKAMGTLGVLS SCSVP GSKPTFELS
 ADEVELGLGIHGEAGVRRIKMATADEIVKLM LDHMTNTTNASHVPVQPGSSVMMVNNLGGLSFLELGII
 ADATVRSLEGRGVKIARALVGT FMSALEMPGISL TLLL VDEPLLKLIDAETTA AAWPNVA AVSITGRKRS
 RVAPAEPQEAPDSTAAGGSASKRMALV LERV CSTLLGLEEHLNALDRAAGDGDGCTH SRAARAIQEWLK
 EGPPPASP AQLLSKL SVLLL EKMGSSGALYGLFL TAAQPLKAKTSLP AWSAAMDAGLEAMQKYGKAAP
 GDRTMLDSLWAAGQELQAWKSPGADLLQVLT KAVKSAEAAA EATKNMEAGAGRASYISSARLEQPDPGAV
 AAAAILRAILEVLQS

SGP**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6618_g07.zip

Restriction Sites:

Sgfl-RsrII

Cloning Scheme:


ACCN: NM_015533

ORF Size: 1725 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.

RefSeq: [NM_015533.4](#)

RefSeq Size: 4248 bp

RefSeq ORF: 1728 bp

Locus ID: 26007

UniProt ID: [Q3LXA3](#)

Cytogenetics: 11q12.2

Domains: Dak1, Dak2

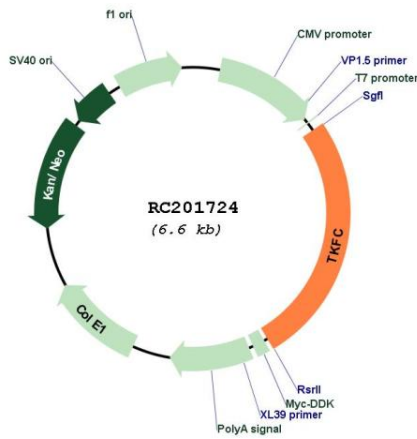
Protein Families: Druggable Genome

Protein Pathways: Glycerolipid metabolism, Metabolic pathways, RIG-I-like receptor signaling pathway

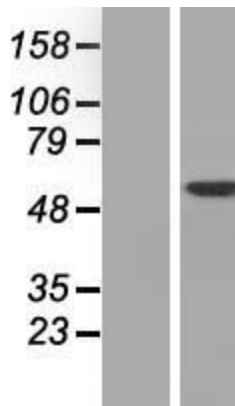
MW: 58.9 kDa

Gene Summary: This gene is a member of the family of dihydroxyacetone kinases, which have a protein structure distinct from other kinases. The product of this gene phosphorylates dihydroxyacetone, and also catalyzes the formation of riboflavin 4',5'-phosphate (aka cyclin FMN) from FAD. Several alternatively spliced transcript variants have been found for this gene. [provided by RefSeq, Jun 2017]

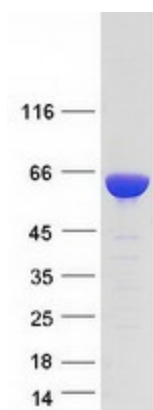
Product images:



Circular map for RC201724



Western blot validation of overexpression lysate (Cat# [LY414482]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC201724 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified TKFC protein (Cat# [TP301724]). The protein was produced from HEK293T cells transfected with TKFC cDNA clone (Cat# RC201724) using MegaTran 2.0 (Cat# [TT210002]).