

Product datasheet for **RC201997**

DYRK3 (NM_001004023) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	DYRK3 (NM_001004023) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	DYRK3
Synonyms:	DYRK5; hYAK3-2; RED; REDK
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC201997 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAAGTGGAAAGAGAAGTTGGGGGATGGTGTCTATGACACCTTCATGATGATAGATGAAACCAATGTC
 CCCCTGTCAAATGTACTCTGCAATCCTTCTGAACCACCTCCACCCAGAAGACTAAATATGACCACTGA
 GCAGTTTACAGGAGATCATACTCAGCACTTTTTGGATGGAGGTGAGATGAAGGTAGAACAGCTGTTTCAA
 GAATTTGGCAACAGAAAATCCAATACTATTCACTCAGATGGCATCAGTACTCTGAAAAATGCTCTCCTA
 CTGTTTCTCAGGGTAAAAGTTTCAAGTTCAGATTGCTTGAATACAGTAAAAATCCAACAGTTCATCCAAGGCACCCAA
 AGTGGTGCCTCTGACTCCAGAACAAGCCCTGAAGCAATATAAACACCCACCTCACTGCCTATGAGAAACTG
 GAAATAATTAATTATCCAGAAAATTTACTTTGTAGGTCAAATGCCAAGAAAAGACATGGAGTTATTGGTG
 GTCCCAATAATGGAGGTATGATGATGCAGATGGGCCTATATTCATGTACCTCGAGACCATCTAGCTTA
 TCGATATGAGGTGCTGAAAATTATTGGCAAGGGGAGTTTTGGGCAGGTGGCCAGGGTCTATGATCACAAA
 CTTTCGACAGTACGTGGCCCTAAAAATGGTGCAGCAATGAGAAGCGCTTTCATCGTCAAGCAGCTGAGGAGA
 TCCGGATTTTGGAGCATCTTAAGAAACAGGATAAAACTGGTAGTATGAACGTTATCCACATGCTGAAAAG
 TTTACATTCCGGAACCATGTTTGCATGGCCTTTGAATTGCTGAGCATAGACCTTTATGAGCTGATTA
 AAAATAAGTTTTCAGGGTTTTAGCGTCCAGTTGGTACACAAGTTTGCCAGTCCATCTTGAATCTTTGG
 ATGCCCTCCACAAAAATAAGATTATTCAGTGCATCTGAAGCCAGAAAACATTCTCTGAAAACACCCAGG
 GCGCAGTTCACCAAGGTCATTGACTTTGGGTCCAGCTGTTTCGAGTACCAGAAGCTCTACACATATATC
 CAGTCTCGGTTCTACAGAGCTCCAGAAAATCATCTTAGGAAGCCGCTACAGCACACCAATTGACATATGGA
 GTTTTGGCTGCATCCTTGCAGAACTTTTAAACAGGACAGCCTCTCTCCCTGGAGAGGATGAAGAGACCA
 GTTGGCCTGCATGATGGAGCTTCTAGGGATGCCACCACCAAAAACCTCTGGAGCAATCCAAAACGTGCCAAG
 TACTTTATTAATTCCAAGGGCATACCCCGCTACTGCTCTGTGACTACCCAGGCAGATGGGAGGGTTGTGC
 TTGTGGGGGGTGCCTCACGTAGGGGTAAAAAGCGGGTCCCCAGGCAGCAAAGACTGGGGGACAGCACT
 GAAAGGGTGTGATGACTACTTGTATAGAGTTCTTGAAGGTGTCTTCACTGGGACCCCTCTGCCCGC
 TTGACCCAGCTCAAGCATTAAAGACACCCTTGGATTAGCAAGTCTGTCCCAGACCTCTCACCACCATAG
 ACAAGGTGTCAGGAAACGGGTAGTTAATCCTGCAAGTGTCTTCCAGGGATTGGGTTCTAAGCTGCCTCC
 AGTTGTTGGAATAGCCAATAAGCTTAAAGCTAACTTAATGTCAGAAACCAATGGTAGTATACCCCTATGC
 AGTGATTGCCAAAACCTGATTAGC

ACGCGTACGCGGGCCGCTCGAGCAGAAAACCTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC201997 protein sequence
 Red=Cloning site Green=Tags(s)

MKWKEKLDGVDYDFMMIDETKPPCSNVLCNPSEPPPPRRLNMTTEQFTGDHTQHFLDGGEMKVEQLFQ
 EFGNRKSNTIQSDGISDSEKCSPTVSQKSSDCLNTVKSNSSSKAPKVVPLTPEQALKQYKHHLTAYEKL
 EIINYPEIYFVGPNAKKRHVIGGPNNGGYDDADGAYIHVPRDHLAYRYEVLKIIIGKGSFGQVARVYDHK
 LRQYVALKMRNEKRFHRQAAEEIRILEHLKKQDKTGSNMVIMHLESFTFRNHVCMFELLSIDL YELIK
 KNKFQGFVQLVHKFAQSILQSLDALHKNKIIHCDLKPENILLKHHGRSSTKVIDFGSSCFEYQKLYTYI
 QSRFYRAPEIILGSRYSTPIDIWSFGCILAELLTGQPLFPGEDEGDQLACMMELLGMPKLLLEQSKRAK
 YFINSKGIPRYCSVTTQADGRVVLVGGRSRRGKRGPPGSKDWGTALKGDDYLFIEFLKRCLHWDPSAR
 LTPAQALRHPWISKSVPRPLTTIDKVSGRVVPASAFQGLGSKLPPVVGIANLKLKANLMSETNGSIPLC
 SVLPKLIIS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6344_b09.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_001004023

ORF Size: 1704 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_001004023.1](#), [NP_001004023.1](#)

RefSeq Size: 2301 bp

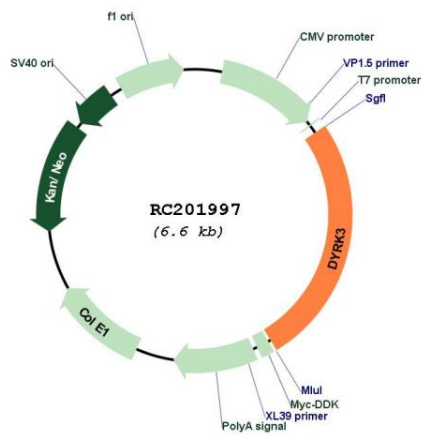
RefSeq ORF: 1707 bp

Locus ID: 8444

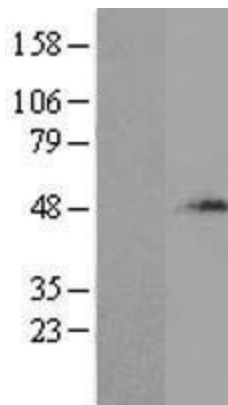
UniProt ID: [O43781](#)
Cytogenetics: 1q32.1
Protein Families: Druggable Genome, Protein Kinase
MW: 64 kDa

Gene Summary: This gene product belongs to the DYRK family of dual-specificity protein kinases that catalyze autophosphorylation on serine/threonine and tyrosine residues. The members of this family share structural similarity, however, differ in their substrate specificity, suggesting their involvement in different cellular functions. The encoded protein has been shown to autophosphorylate on tyrosine residue and catalyze phosphorylation of histones H3 and H2B in vitro. Alternatively spliced transcript variants encoding different isoforms have been identified. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RC201997



Western blot validation of overexpression lysate (Cat# [LY424049]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC201997 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).