

Product datasheet for **RC224654**

DYRK3 (NM_003582) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	DYRK3 (NM_003582) 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:

>RC224654 representing NM_003582
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGGAGGCACAGCTCGTGGCCTGGGCGAAGGATGCGGGCCGCTGGGGCCGGCTCCCGCCCAGC
 AGCGGAGTTGGGGATGGTGTCTATGACACCTCATGATGATAGATGAAACCAAATGTCCCCCTGTT
 AAATGACTCTGCAATCCTTCTGAACCCTCCACCCAGAAGACTAAATATGACCACTGAGCAGTTTACA
 GGAGATCATACTCAGCACTTTTTGGATGGAGGTGAGATGAAGGTAGAACAGCTGTTTCAAGAATTTGGCA
 ACAGAAAACTCAATACTATTCAGTCAGATGGCATCAGTACTCTGAAAAATGCTCTCCTACTGTTTCTCA
 GGGTAAAAGTTTCAAGTTCGTTGAATACAGTAAAAATCCAACAGTTCATCCAAGGCACCCAAAGTGGTGCCT
 CTGACTCCAGAACAAGCCCTGAAGCAATATAAACACCACCTCACTGCCTATGAGAACTGGAAATAATTA
 ATATCCAGAAATTTACTTTGTAGGTCCAAATGCCAAGAAAAGACATGGAGTTATTGGTGGTCCCAATAA
 TGGAGGTATGATGATGCAGATGGGCCTATATTCATGTACCTCGAGACCATCTAGCTTATCGATATGAG
 GTGCTGAAAAATTATTGGCAAGGGGAGTTTTGGGCAGGTGGCCAGGTCTATGATCACAACTTCGACAGT
 ACGTGGCCCTAAAAATGGTGCACATGAGAAGCGCTTTCATCGTCAAGCAGCTGAGGAGATCCGGATTTT
 GGAGCATCTTAAGAAACAGGATAAACTGGTAGTATGAACGTTATCCACATGCTGGAAAGTTTACATTC
 CGGAACCATGTTTGCATGGCCTTTGAATGCTGAGCATAGACCTTATGAGCTGATTAATAAAAAATAAGT
 TTCAGGGTTTTAGCGTCCAGTTGGTACGCAAGTTTGCCAGTCCATCTTGCAATCTTTGGATGCCCTCCA
 CAAAAAAGATTATTCAGTGCATCTGAAGCCAGAAAACATTCTCTGAAACACCACGGGCGCAGTTCA
 ACCAAGGTCATTGACTTTGGGTCCAGCTGTTTCGAGTACCAGAAGCTCTACACATATATCCAGTCTCGGT
 TCTACAGAGCTCCAGAAATCATCTTAGGAAGCCGCTACAGCACCAATGACATATGGAGTTTTGGCTG
 CATCCTTGCAAGACTTTTAAACAGGACAGCTCTCTTCCCTGGAGAGGATGAAGGAGACCAGTTGGCCTGC
 ATGATGGAGCTTCTAGGGATGCCACCACAAAACCTCTGGAGCAATCCAACGTGCCAAGTACTTTATTA
 ATTCGAAGGGCATACCCCGCTACTGCTCTGTGACTACCCAGGCAGATGGGAGGGTTGTGCTGTGGGGGG
 TCGCTCACGTAGGGGTAAAAAGCGGGTCCCCAGGCAGCAAAGACTGGGGGACAGCACTGAAAGGGTGT
 GATGACTACTTGTATAGAGTTCTTGAAGGTGTCTTCACTGGGACCCCTCTGCCCGTTGACCCAG
 CTCAAGCATTAAAGACACCCTGGATTAGCAAGTCTGTCCCAGACCTCTACCACCATAGACAAGGTGTC
 AGGGAACGGGTAGTTAATCCTGCAAGTCTTCCAGGGATTGGGTTCTAAGCTGCCTCCAGTTGTTGGA
 ATAGCCAATAAGCTTAAAGCTAACTAATGTCAGAAACCAATGGTAGTATACCCCTATGCAGTGTATTGC
 CAAAACCTGATTAGC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC224654 representing NM_003582
 Red=Cloning site Green=Tags(s)

MGGTARGPGRKDAGPPGAGLPPQQRRLGDGVYDTFMMIDETKPPCSNVLGNPSEPPPPRRLNMTTEQFT
 GDHTQHFLDGGEMKVEQLFQEFGNRKSNTIQSDGISDSEKCSPTVSQKSSDCLNTVKSNSSSKAPKVVP
 LTPEQALKQYKHHLTAYEKLEIINYPEIYFVGNPNAKRRHGVIGGPNNGGYDDADGAYIHVPRDHLAYRYE
 VLKIIIGKGSFGQVARVYDHLRQYVALKMRNEKRFHRQAAEEIRILEHLKKQDKTGSNMVIMLESFTF
 RNHVCMAFELLSIDL YELIKKNKFQGF SVQLVRKFAQSILQSLDALHKNKIIHCDLKPENILLKHHGRSS
 TKVIDFGSSCFEYQKLYTYIQSRFYRAPEIILGSRYSTPIDIWSFGCILAEELLTGQPLFPGEDEGDLAC
 MMELLGMPPPKLLEQSKRAKYFINSKGIIPRYCSVTTQADGRVVLVGGRRRGGKRGPPGSKDWGTALKGC
 DDYLFIEFLKRCLHWDP SARLTPAALRHPWISKSVPRPLTTIDKVS GKRVVNPASAFQGLGSKLPPVVG
 IANKLKANLMSETNGSIPLCSVLPKLIS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk8068_f06.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_003582

ORF Size: 1764 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in *E. coli* are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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_003582.3](#)

RefSeq Size: 2207 bp

RefSeq ORF: 1767 bp

Locus ID: 8444

UniProt ID: [O43781](#)

Cytogenetics: 1q32.1

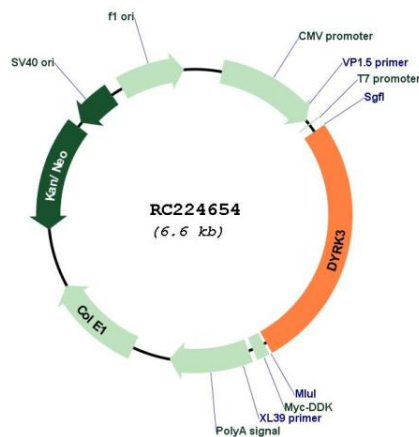
Domains: pkinase

Protein Families: Druggable Genome, Protein Kinase

MW: 65.5 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 RC224654