

Product datasheet for **RC202413**

DYRK2 (NM_003583) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	DYRK2 (NM_003583) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	DYRK2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC202413 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAATGATCACCTGCATGTCGGCAGCCACGCTCACGGACAGATCCAGGTTCAACAGTTGTTTGAGGATA
 ACAGTAACAAGCGGACAGTGCTCACGACACAACCAAAATGGGCTTACAACAGTGGGCAAAAACGGGCTTGCC
 AGTGGTGCAGAGCGGCAGCTGGACAGCATTATAGACGGCAGGGGAGCTCCACCTCTCTAAAGTCCATG
 GAAGGCATGGGGAAGGTGAAAGCCACCCCATGACACCTGAACAAGCAATGAAGCAATACATGCAAAAAAC
 TCACAGCCTTCGAACACCATGAGATTTTCAGCTACCCTGAAATATATTTCTTGGGTCTAAATGCTAAGAA
 GCGCCAGGGCATGACAGGTGGGCCAACCAATGGTGGCTATGATGATGACCAGGGATCATATGTGCAGGTG
 CCCCACGATCACGTGGCTTACAGGTATGAGGTCTCAAGGTCATTGGGAAGGGGAGCTTTGGGCAGGTGG
 TCAAGGCCTACGATCACAAAGTCCACCAGCACGTGGCCCTAAAGATGGTGCAGGAAATGAGAAGCGCTTCCA
 CCGGAAGCAGCGGAGGAGATCCGAATCTGGAACACCTGCGGAAGCAGGACAAGGATAACACAATGAAT
 GTCATCCATATGCTGGAGAATTTACCTTCCGCAACCACATCTGCATGAGTTTGTAGCTGCTGAGCATGA
 ACCTCTATGAGCTCATCAAGAAGAATAAATTCAGGGCTTCAGTCTGCCTTTGGTTCCGAAGTTGCCCA
 CTCGATTTGTCAGTGCTTGGATGCTTGGCAGAAAAACAGAATAATTCAGTGTGACCTTAAGCCCGAGAAC
 ATTTTGTAAAGCAGCAGGGTAGAAGCGGTATTAAGTAATTGATTTGGCTCCAGTTGTTACGAGCATC
 AGCGTGTCTACACGTACATCCAGTCGCGTTTTTACCGGCTCCAGAAGTATCCTTGGGGCCAGGTATGG
 CATGCCATTGATATGTGGAGCCTGGGCTGCATTTAGCAGAGCTCCTGACGGGTACCCCTCTTGCT
 GGGGAAGATGAAGGGACCAGCTGGCCTGTATGATTGAACTGTTGGCATGCCCTCACAGAAACTGCTGG
 ATGCATCCAACGAGCCAAAAATTTGTGAGCTCCAAGGGTTATCCCGTTACTGCAGTGCACGACTCT
 CTCAGATGGCTCTGTGGTCTAAACGGAGGCCGTTCCCGGAGGGGAAACTGAGGGGCCACCGGAGAGC
 AGAGAGTGGGTAACGCGCTGAAGGGTGTGATGATCCCTTTTCTTACTTCTTAAAACAGTGTTTAG
 AGTGGGATCCTGCAGTGCAGTACCCCCAGGCCAGGCTTTCGCGCACCCCTGGCTGAGGAGGCGGTTGCC
 AAAGCCTCCACCGGGGAGAAAACGTCAGTGAAAAGGATAACTGAGAGCACCGGTGCTATCACATCTATA
 TCCAAGTTACCTCCACCTTCTAGCTCAGCTTCAAAGTGAAGGACTAATTTGGCGCAGATGACAGATGCCA
 ATGGGAATATTCAGCAGAGGACAGTGTGCCAAAACCTGTTAGC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC202413 protein sequence
 Red=Cloning site Green=Tags(s)

MNDHLHVGSHAHGQIQVQQLFEDNSNKRTVLTTPNGLTTVGKTGLPVVPERQLDSIHRRQGSSTSLKSM
 EGMGKVKATPMTPEQAMKQYMQKLTAFEHHEIFSYPEIYFLGLNAKKRQGMTGGPNNGGYDDDQGSYVQV
 PHDHVAYRYEVLKVIKGSFGQVVKAYDHKVVHQHVALKMRNEKRFHRQAAEEIRILEHLRKQDKDNTMN
 VIHMLENFTFRNHICMTFELLSMNLIELKKNKFQGFSLPLVRKFAHSILQCLDALHKNRIIHCCLKPEN
 ILLKQQGRSGIKVIDFGSSCYEHQRVYTYIQSRFYRAPEVILGARYGMPIDMWSLGCILAEELLTGYPLLP
 GEDEGDQLACMIELLGMPSQKLLDASKRAKNFVSSKGYPRYCTVTTLSDGSVVLNNGRSRRKLRGPPES
 REWGNALKGDDPLFLDFLKQCLEWDPAYRMTPGQALRHPWLRRLPKPPTGEKTSVKRITESTGATISI
 SKLPPSSSASKLRTNLAQMTDANGNIQQRVLPKLV

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6277_c10.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_003583

ORF Size: 1584 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.

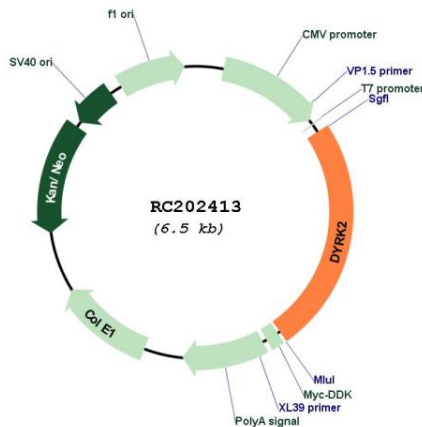
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

- 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.

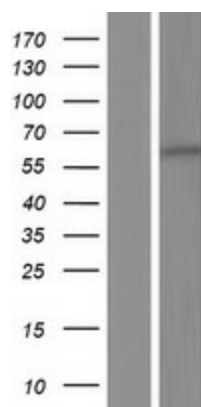
RefSeq: [NM_003583.4](#)
RefSeq Size: 6010 bp
RefSeq ORF: 1587 bp
Locus ID: 8445
UniProt ID: [Q92630](#)
Cytogenetics: 12q15
Domains: pkinase, TyrKc, S_TKc
Protein Families: Druggable Genome, Protein Kinase
MW: 59.7 kDa

Gene Summary: DYRK2 belongs to a family of protein kinases whose members are presumed to be involved in cellular growth and/or development. The family is defined by structural similarity of their kinase domains and their capability to autophosphorylate on tyrosine residues. DYRK2 has demonstrated tyrosine autophosphorylation and catalyzed phosphorylation of histones H3 and H2B in vitro. Two isoforms of DYRK2 have been isolated. The predominant isoform, isoform 1, lacks a 5' terminal insert. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RC202413



Western blot validation of overexpression lysate (Cat# [LY418571]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC202413 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).