

## Product datasheet for **RG202413**

### **DYRK2 (NM\_003583) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	DYRK2 (NM_003583) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	DYRK2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG202413 representing NM\_003583  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGAATGATCACCTGCATGTCGGCAGCCACGCTCACGGACAGATCCAGGTTCAACAGTTGTTTGAGGATA  
 ACAGTAACAAGCGGACAGTGCTCACGACACAACCAATGGGCTTACAACAGTGGGCAAAACGGGCTTGCC  
 AGTGGTGCCAGAGCGGCAGCTGGACAGCATTATAGACGGCAGGGGAGCTCCACCTCTCTAAAGTCCATG  
 GAAGGCATGGGAAGGTGAAAGCCACCCCATGACACCTGAACAAGCAATGAAGCAATACATGCAAAAAAC  
 TCACAGCCTTCGAACACCATGAGATTTTCAGCTACCCTGAAATATATTTCTTGGGTCTAAATGCTAAGAA  
 GCGCCAGGGCATGACAGGTGGGCCAACCAATGGTGGCTATGATGATGACCAGGGATCATATGTGCAGGTG  
 CCCCACGATCACGTGGCTTACAGGTATGAGGTCTCAAGGTCATTGGGAAGGGGAGCTTTGGGCAGGTGG  
 TCAAGGCCTACGATCACAAAGTCCACCAGCACGTGGCCCTAAAGATGGTGCAGGATGAGAAGCGCTTCCA  
 CCGGAAGCAGCGGAGGAGATCCGAATCTGGAACACCTGCGGAAGCAGGACAAGGATAACACAATGAAT  
 GTCATCCATATGCTGGAGAATTTACCTTCCGCAACCACATCTGCATGAGTTTGTAGCTGCTGAGCATGA  
 ACCTCTATGAGCTCATCAAGAAGAATAAATTCAGGGCTTCAGTCTGCCTTTGGTTTCGCAAGTTGCCCA  
 CTCGATTTGTCAGTGCTTGGATGCTTGGCAGCAAAAACAGAATAATTCAGTGTGACCTTAAGCCCGAGAAC  
 ATTTTGTAAAGCAGCAGGGTAGAAGCGGTATTAAGTAATTGATTTGGCTCCAGTTGTTACGAGCATC  
 AGCGTGTCTACACGTACATCCAGTCGCGTTTTTACCGGCTCCAGAAGTATCCTTGGGGCCAGGTATGG  
 CATGCCATTGATATGTGGAGCCTGGGCTGCATTTAGCAGAGCTCCTGACGGGTACCCCTCTTGCT  
 GGGGAAGATGAAGGGGACCAGCTGGCCTGTATGATTGAACTGTTGGGCATGCCCTCACAGAACTGCTGG  
 ATGCATCCAACGAGCCAAAAATTTGTGAGCTCCAAGGTTATCCCGTACTGCAGTGCACGACTCT  
 CTCAGATGGCTCTGTGGTCTAAACGGAGGCCGTTCCCGGAGGGGAACTGAGGGGCCACCGGAGAGC  
 AGAGAGTGGGGAAACGCGCTGAAGGGTGTGATGATCCCTTTTCTTGACTTCTTAAAACAGTGTTTAG  
 AGTGGGATCCTGCAGTGCAGTACCCCCAGGCCAGGCTTTGCGGCACCCCTGGCTGAGGAGGCGGTTGCC  
 AAAGCCTCCACCGGGGAGAAAACGTCAGTGAAAAGGATAACTGAGAGCACCGGTGCTATCACATCTATA  
 TCCAAGTTACCTCCACCTTCTAGCTCAGCTTCAAACCTGAGGACTAATTTGGCGCAGATGACAGATGCCA  
 ATGGGAATATTCAGCAGAGGACAGTGTGCCAAAACCTGTTAGC

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA

**Protein Sequence:**

>RG202413 representing NM\_003583  
 Red=Cloning site Green=Tags(s)

MNDHLHVGSHAHGQIQVQQLFEDNSNKRTVLTTQPNGLTTVGKTGLPVVPERQLDSIHRRQGSSTSLKSM  
 EGMGKVKATPMTPEQAMKQYMQKLTAFEHHEIFSYPEIYFLGLNAKKRQGMTGGPNNGYDDDQGSYVQV  
 PHDHVAYRYEVLKVIKGSFGQVVKAYDVKVHQHVALKMRNEKRFHRQAAEEIRILEHLRKQDKDNTMN  
 VIHMLENFTFRNHICMTFELL SMNL YELIKKNKFQGFSLPLVRKFAHSILQCLDALHKNRIIHCCLKPEN  
 ILLKQQGRSGIKVIDFGSSCYEHQRVYTYIQSRFYRAPEVILGARYGMPIDMWSLGCILAEELLTGYPLLP  
 GEDEGDQLACMIELLGMPSQKLLDASKRAKNFVSSKGYPRYCTVTTLSDGSVVLNNGRSRRGKLRGPPE  
 REWGNALKGDDPLFLDFLKQCLEWDPVAVRMTPGQALRHPWLRRLPKPPTGEKTSVKRITESTGAITSI  
 SKLPPSSSASKLRTNLAQMTDANGNIQRTVLPKLV

**TRTRPLE** - GFP Tag - V

**Restriction Sites:**

Sgfl-MluI

**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](mailto: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](#)

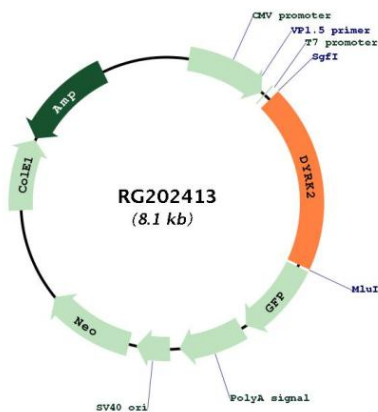
**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

**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:** 3466 bp  
**RefSeq ORF:** 1587 bp  
**Locus ID:** 8445  
**UniProt ID:** [Q92630](#)  
**Cytogenetics:** 12q15  
**Domains:** pkinase, TyrKc, S\_TKc  
**Protein Families:** Druggable Genome, Protein Kinase  
**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 RG202413