

Product datasheet for **RG201997**

DYRK3 (NM_001004023) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	DYRK3 (NM_001004023) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	DYRK3
Synonyms:	DYRK5; hYAK3-2; RED; REDK
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG201997 representing NM_001004023
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAAGTGGAAAGAGAAGTTGGGGGATGGTGTCTATGACACCTTCATGATGATAGATGAAACCAATGTC
 CCCCTGTTCAAATGTACTCTGCAATCCTTCTGAACCACCTCCACCCAGAAGACTAAATATGACCACTGA
 GCAGTTTACAGGAGATCATACTCAGCACTTTTTGGATGGAGGTGAGATGAAGGTAGAACAGCTGTTTCAA
 GAATTTGGCAACAGAAAATCCAATACTATTCACTGAGTGGCATCAGTACTCTGAAAAATGCTCTCCTA
 CTGTTTCTCAGGGTAAAAGTTTCAAGATTGCTTGAATACAGTAAAAATCCAACAGTTCATCCAAGGCCACCAA
 AGTGGTGCCTCTGACTCCAGAACAAGCCCTGAAGCAATATAAACACCCACCTCACTGCCTATGAGAACTG
 GAAATAATTAATTATCCAGAAAATTTACTTTGTAGGTCAAATGCCAAGAAAAGACATGGAGTTATTGGTG
 GTCCTCAATATGGAGGTATGATGATGCAGATGGGCCTATATTCATGTACCTCGAGACCATCTAGCTTA
 TCGATATGAGGTGCTGAAAATTATTGGCAAGGGGAGTTTTGGGCAGGTGGCCAGGTCTATGATCACAAA
 CTTTCGACAGTACGTGGCCCTAAAAATGGTGCAGCAATGAGAAGCGCTTTCATCGTCAAGCAGCTGAGGAGA
 TCCGGATTTGGAGCATCTTAAGAAACAGGATAAAACTGGTAGTATGAACGTTATCCACATGCTGAAAAG
 TTTACATTCCGGAACCATGTTTGCATGGCCTTTGAATTGCTGAGCATAGACCTTTATGAGCTGATTA
 AAAATAAGTTTTCAGGGTTTTAGCGTCCAGTTGGTACACAAGTTTGCCAGTCCATCTTGAATCTTTGG
 ATGCCCTCCAAAAATAAGATTATCACTGCGATCTGAAGCCAGAAAACATTCTCTGAAACACCACGG
 GCGCAGTTCACCAAGGTCATTGACTTTGGGTCCAGCTGTTTCGAGTACCAGAAGCTCTACACATATATC
 CAGTCTCGGTTCTACAGAGCTCCAGAAAATCATCTTAGGAAGCCGCTACAGCACACCAATTGACATGGA
 GTTTTGGCTGCATCCTTGCAGAACTTTAACAGGACAGCCTCTCTCCCTGGAGAGGATGAAGGAGACCA
 GTTGGCCTGCATGATGGAGCTTCTAGGGATGCCACCACCAAAACTTCTGGAGCAATCCAAACGTGCCAAG
 TACTTTATTAATTCCAAGGCATACCCCGCTACTGCTCTGTGACTACCCAGGCAGATGGGAGGGTTGTGC
 TTGTGGGGGGTGCCTCACGTAGGGGTAAAAAGCGGGTCCCCAGGCAGCAAAGACTGGGGGACAGCACT
 GAAAGGGTGTGATGACTACTTGTATAGAGTTCTTGAAAAGGTGTCTTCACTGGGACCCCTCTGCCCGC
 TTGACCCAGCTCAAGCATTAAAGACACCCTTGATTAGCAAGTGTCCCCAGACCTCTCACCACCATAG
 ACAAGGTGTCAGGAAACGGGTAGTTAATCCTGCAAGTGTCTCCAGGGATTGGGTTCTAAGCTGCCTCC
 AGTTGTTGGAATAGCCAATAAGCTTAAAGCTAACTTAATGTCAGAAACCAATGGTAGTATACCCCTATGC
 AGTGTATTGCCAAAACCTGATTAGC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG201997 representing NM_001004023
 Red=Cloning site Green=Tags(s)

MKWKEKLGDVYDTFMMIDETKPPCSNVLNCPSEPPPPRRNLNMTTEQFTGDHTQHFLDGGEMKVEQLFQ
 EFGNRKSNTIQSDGISDSEKCSPTVSQGKSSDCLNTVKSNSSSKAPKVVPLTPEQALKQYKHHLTAYEKL
 EIINYPEIYFVGPNAKKRHGVIGPNNGGYDDADGAYIHVPRDHLAYRYEVLKIIIGKGSFGQVARVYDHK
 LRQYVALKMRNEKRFHRQAAEEIRILEHLKKQDKTGSNMVIMHLESFTFRNHVCMFAFELLSIDLVELIK
 KNKFQGFVQLVHKFAQSILQSLDALHKNKIHCCLKPENILLKHHGRSSTKVIDFGSSCFEYQKLYTYI
 QSRFYRAPEIILGSRYSTPIDIWSFGCILAELLTGQPLFPGEDGDLACMMELLMPPPKLLEQSKRAK
 YFINSKGIPRYCSVTTQADGRVVLVGGRSRRGKRGPPGSKDWGTALKGDDYLFIEFLKRCLHWDP SAR
 LTPAQALRHPWISKSVPRLTTIDKVSGRVVPASAFQGLGSKLPPVVGIANLKLKANLMSETNGSIPLC
 SVLPKLIS

TRTRPLE - GFP Tag - V

Restriction Sites:

SgfI-MluI

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.

RefSeq: [NM_001004023.1](#), [NP_001004023.1](#)

RefSeq Size: 2301 bp

RefSeq ORF: 1707 bp

Locus ID: 8444

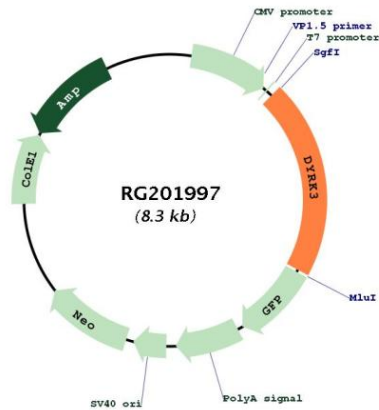
UniProt ID: [O43781](#)

Cytogenetics: 1q32.1

Protein Families: Druggable Genome, Protein Kinase

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 RG201997