OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for SC323461

DYRK3 (NM_003582) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	DYRK3 (NM_003582) Human Untagged Clone
Tag:	Tag Free
Symbol:	DYRK3
Synonyms:	DYRK5; hYAK3-2; RED; REDK
Mammalian Cell Selection:	None
Vector:	pCMV6-XL5
E. coli Selection:	Ampicillin (100 ug/mL)

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Fully Sequenced ORF:

>NCBI ORF sequence for NM_003582, the custom clone sequence may differ by one or more nucleotides

ATGGGAGGCACAGCTCGTGGGCCTGGGCGGAAGGATGCGGGGCCGCCTGGGGCCGGGCTCCCGCCCCAGC
AGCGGAGGTTGGGGGATGGTGTCTATGACACCTTCATGATGATAGATGAAACCAAATGTCCCCCCTGTTC
AAATGTACTCTGCAATCCTTCTGAACCACCTCCACCCAGAAGACTAAATATGACCACTGAGCAGTTTACA
GGAGATCATACTCAGCACTTTTTGGATGGAGGTGAGATGAAGGTAGAACAGCTGTTTCAAGAATTTGGCA
ACAGAAAATCCAATACTATTCAGTCAGATGGCATCAGTGACTCTGAAAAATGCTCTCCTACTGTTTCTCA
GGGTAAAAGTTCAGATTGCTTGAATACAGTAAAATCCAACAGTTCATCCAAGGCACCCAAAGTGGTGCCT
CTGACTCCAGAACAAGCCCTGAAGCAATATAAACACCACCTCACTGCCTATGAGAAACTGGAAATAATTA
ATTATCCAGAAATTTACTTTGTAGGTCCAAATGCCAAGAAAAGACATGGAGTTATTGGTGGTCCCAATAA
TGGAGGGTATGATGATGCAGATGGGGCCTATATTCATGTACCTCGAGACCATCTAGCTTATCGATATGAG
GTGCTGAAAATTATTGGCAAGGGGAGTTTTGGGCAGGTGGCCAGGGTCTATGATCACAAACTTCGACAGT
ACGTGGCCCTAAAAATGGTGCGCAATGAGAAGCGCTTTCATCGTCAAGCAGCTGAGGAGATCCGGATTTT
GGAGCATCTTAAGAAACAGGATAAAACTGGTAGTATGAACGTTATCCACATGCTGGAAAGTTTCACATTC
CGGAACCATGTTTGCATGGCCTTTGAATTGCTGAGCATAGACCTTTATGAGCTGATTAAAAAAAATAAGT
TTCAGGGTTTTAGCGTCCAGTTGGTACGCAAGTTTGCCCAGTCCATCTTGCAATCTTTGGATGCCCTCCA
CAAAAATAAGATTATTCACTGCGATCTGAAGCCAGAAAACATTCTCCTGAAACACCACGGGCGCAGTTCA
ACCAAGGTCATTGACTTTGGGTCCAGCTGTTTCGAGTACCAGAAGCTCTACACATATATCCAGTCTCGGT
TCTACAGAGCTCCAGAAATCATCTTAGGAAGCCGCTACAGCACACCAATTGACATATGGAGTTTTGGCTG
CATCCTTGCAGAACTTTTAACAGGACAGCCTCTCTTCCCTGGAGAGGATGAAGGAGACCAGTTGGCCTGC
ATGATGGAGCTTCTAGGGATGCCACCACCAAAACTTCTGGAGCAATCCAAACGTGCCAAGTACTTTATTA
ATTCCAAGGGCATACCCCGCTACTGCTCTGTGACTACCCAGGCAGATGGGAGGGTTGTGCTTGTGGGGGG
TCGCTCACGTAGGGGTAAAAAGCGGGGTCCCCCAGGCAGCAAAGACTGGGGGACAGCACTGAAAGGGTGT
GATGACTACTTGTTTATAGAGTTCTTGAAAAGGTGTCTTCACTGGGACCCCTCTGCCCGCTTGACCCCAG
CTCAAGCATTAAGACACCCTTGGATTAGCAAGTCTGTCCCCAGACCTCTCACCACCATAGACAAGGTGTC
AGGGAAACGGGTAGTTAATCCTGCAAGTGCTTTCCAGGGATTGGGTTCTAAGCTGCCTCCAGTTGTTGGA
ATAGCCAATAAGCTTAAAGCTAACTTAATGTCAGAAACCAATGGTAGTATACCCCTATGCAGTGTATTGC
CAAAACTGATTAGCTAG

5' Read Nucleotide Sequence:

>OriGene 5' read for mutant NM_003582 unedited
CCCGCCGTTGAGCAATGGGCGGTAGGCGTGTACGGTGGGAGGTCTATATAAGCAGAGCTCGTTTAGTGAA
CCGTCAGAATTTTGTAATACGACTCACTATAGGGCGGCCGCGAATTCGGCACGAGGCTATGACACCTTCA
TGATGATAGATGAAACCAAATGTCCCCCCTGTTCAAATGTACTCTGCAATCCTTCTGAACCACCTCCACC
CAGAAGACTAAATATGACCACTGAGCAGTTTACAGGAGATCATACTCAGCACTTTTTGGATGGAGGTGAG
ATGAAGGTAGAACAGCTGTTTCAAGAATTTGGCAACAGAAAAATCCAATACTATTTCAGTCAGATGGGCA
TCAGTGACTCTGAAAAAATGCTCCTCCTACTGTTTCTCAGGGTAAAAAGTTCAGAATTGCTTGAATTACA
GTAAAATCCAACAGTTTCATCCCAAGGGCACCCCAAGTTGGGTGCCCTCGGAACTCCGGAACAACCCTTG
GAGCCATTTTAACCACCAACCTCATTGCCAATAGAAAACTGGAATTAATTTATTTATCCAGAAATTTACT
TTGTGGGTCCAAATGCCAGAAAAGACATGGGGAGTTATTGGGGTTCCAAATAGGGGGGGTTAAATGATGC
CATGGGGGCCCAATTTCTAGTGACCCGAGACCCACTATGCTTAACGAAATGAAGGTTGCGCTGAAATATT
TGGCAAGGGGAGATTTGGGCAGGTGGGGCCGGGCTATGATTATCAAACTTTACAGTACGTGGGGCCCATG
ATAGTGCGGCACTGAGGAGAAGCCTTTATCTCTAGCGCTGAGAGGATCTGCATTTGTAGCACTTATAAGA
AGAGAACGTGTAGTACGTGTTCACACGCTGCGAGATTACTACGCACACGTTGTCGGCGCGATAGTGCATA
CATCTAAACGATTAACAATTCGTGTATCACGCTTAGAGCAATGAGCACACATCGCCGACTCGATGGCTTC
ACGACATAAAGAT

Kinase Domain Sequence:	>SC323461 kinase domain raw sequence. By performing BLASTX analysis with this sequence against NCBI refernce protein database, you can confirm the presence of the kinase-deficient mutation TRRGGKCTGAATTATTGGCAGGGGAGTTTTGGGCAGGTGGCCAGGGTCTATGATCACAAACTTCGACAGT ACGTGGCCCTAATGATGGTGCGCAATGAGAAGCGCTTTCATCGTCAAGCAGCTGAGGAGATCCGGATTTT GGAGCATCTTAAGAAACAGGATAAAACTGGTAGTATGAACGTTATCCACATGCTGGAAAGTTTCACATTC CGGAACCATGTTTGCATGGCCTTTGAATTGCTGAGCATAGACCTT
Restriction Sites:	Please inquire
ACCN:	NM_003582
Insert Size:	2050 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 kinase-deficient mutant clone was generated by created by site-directed mutagenesis from the corresponding wild-type clone. See details in "Application of active and kinase-deficient kinome collection for identification of kinases regulating hedgehog signaling." Cell. 2008 May p536-548.
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_003582.1, NP_003573.1
RefSeq Size:	2141 bp
RefSeq ORF:	1662 bp
Locus ID:	8444
UniProt ID:	O43781

Cytogenetics:	1q32.1
Domains:	pkinase
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] Transcript Variant: This variant (1) represents the shorter transcript, but encodes the longer isoform (a), also known as the RED-L isoform.