

## Product datasheet for **SC117867**

### **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:	<u><a href="#">pCMV6-XL5</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >OriGene ORF sequence for NM\_003582 edited  
 ATGATGATAGATGAAACCAATGTCCCCCTGTTCAAATGTAAGTCTGCAATCCTTCTGAA  
 CCACCTCCACCCAGAAGACTAAATATGACCACTGAGCAGTTTACAGGAGATCATACTCAG  
 CACTTTTTGGATGGAGGTGAGATGAAGGTAGAACAGCTGTTTCAAGAATTTGGCAACAGA  
 AAATCCAATACTATTCAGTCAGATGGCATCAGTACTCTGAAAAATGCTCTCCTACTGTT  
 TCTCAGGTAAAAGTTCAGATTGCTTGAATACAGTAAAAATCCAACAGTTCATCCAAGGCA  
 CCCAAAGTGGTGCCTCTGACTCCAGAACAAGCCCTGAAGCAATATAAACACCACCTCACT  
 GCCTATGAGAACTGGAAATAATTAATTATCCAGAAATTTACTTTGTAGGTCCAAATGCC  
 AAGAAAAGACATGGAGTTATTGGTGGTCCCAATATGGAGGGTATGATGATGCAGATGGG  
 GCCTATATTCATGTACTCGAGACCCTAGCTTATCGATATGAGGTGCTGAAAATTTATT  
 GGCAAGGGGAGTTTTGGCAGGTGGCCAGGTCTATGATCACAACTTCGACAGTACGTG  
 GCCCTAAAAATGGTGCGAATGAGAAGCGCTTTCATCGTCAAGCAGCTGAGGAGATCCGG  
 ATTTTGGAGCATCTTAAGAAACAGGATAAACTGGTAGTATGAACGTTATCCACATGCTG  
 GAAAGTTTACATTCCGGAACCATGTTTGCATGGCCTTTGAATTGCTGAGCATAGACCTT  
 TATGAGCTGATTAATAAATAAGTTTTCAGGGTTTTAGCGTCCAGTTGGTACGCAAGTTT  
 GCCCAGTCCATCTTGAATCTTTGGATGCCTCCACAAAAATAAGATTATCACTGCGAT  
 CTGAAGCCAGAAAACATTCTCCTGAAACACCACGGGCGCAGTTCAACCAAGGTCATTGAC  
 TTTGGTCCAGCTGTTTCGAGTACCAGAAGCTCTACACATATATCCAGTCTCGGTTCTAC  
 AGAGCTCCAGAAATCATCTTAGGAAGCCGCTACAGCACACCAATTGACATATGGAGTTTT  
 GGCTGCATCCTTGCAAACTTTTAAACAGGACAGCTCTCTTCCCTGGAGAGGATGAAGGA  
 GACCAGTTGGCCTGCATGATGGAGCTTCTAGGGATGCCACCACCAAACTTCTGGAGCAA  
 TCCAAACGTGCCAAGTACTTTAATTAATCAAGGGCATAACCCGCTACTGCTCTGTGACT  
 ACCCAGGCAGATGGGAGGTTGTGCTTGTGGGGGTCGCTCACGTAGGGGTAATAAGCGG  
 GGTCCCCAGGCAGCAAAGACTGGGGGACAGCACTGAAAGGGTGTGATGACTACTTGT  
 ATAGAGTCTTGAAGGTGTCTTCACTGGGACCCTCTGCCCGTTGACCCAGCTCAA  
 GCATTAAGACACCCTTGGATTAGCAAGTCTGTCCCAGACCTCTCACCACCATAGACAAG  
 GTGTCAGGAAACGGGTAGTTAATCCTGCAAGTCTTCCAGGGATTGGTTCTAAGCTG  
 CCTCCAGTTGTTGGAATAGCCAATAAGCTTAAAGCTAACTAATGTGAGAAACCAATGGT  
 AGTATACCCTATGCAGTGTATTGCCAAAAGTATTAGCTAG

**5' Read Nucleotide Sequence:** >OriGene 5' read for NM\_003582 unedited  
 NGGGGTCAAATTTGTATACGACTCACTATAGGGCGCCGCGAATTCGCACGAGGCTATG  
 ACACCTTCATGATGATAGATGAAACCAATGTCCCCCTGTTCAAATGTAAGTCTGCAATC  
 TTCTGAACCACCTCCACCCAGAAGACTAAATATGACCACTGAGCAGTTTACAGGAGATC  
 ATACTCAGCACTTTTTGGATGGAGGTGAGATGAAGGTAGAACAGCTGTTTCAAGAATTTG  
 GCAACAGAAAAATCCAATACTATTCAGTCAGATGGCATCAGTACTCTGAAAAATGCTCTC  
 TACTGTTTCTCAGGGTAAAAGTTCAGATTGCTTGAATACAGTAAAAATCCAACAGTTTCA  
 CCAAGGCACCCAAAGTGGTGCCTCTGACTCCAGAACAAGCCCTGAAGCAATATAAACACC  
 ACCTCACTGCCTATGAGAACTGGAAATAATTAATTATCCAGAAATTTACTTTGTAGGTC  
 CAAATGCCAAGAAAAGACATGGAGTTATTGGTGGTCCCAATAATGGAGGGTATGATGATG  
 CAGATGGGCTATATTCATGTACTCGAGACCCTAGCTTATCGATATGAGGTGCTGA  
 AAATTATTGGCAAGGGGAGTTTTGGCAGGTGGCCAGGTCTATGATCACAACTTCGAC  
 AGTACGTGCCCTAAAAATGGTGCGAATGAGAAGCGCTTTCATCGTCAAGCAGCTGAGG  
 AGATCCGGATTTGGAGCATCTTAAGAANACAGGATAAACTGGTAGTATGAACGTTATCC  
 ACATGCTGNGAAAGTTCACATTCGGAACCATGNTGCATGGCCTTTGAAATGCTGAGCA  
 TAGACCTTTATGAGCTGATTAATAAATAAGTTTTCAGGGTTNTAGCGTCAGTTGTACGCA  
 AGTTTGCCCATTCATCTTGCATCTTTGGATGC

**Restriction Sites:** NotI-NotI  
**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](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](#)

**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.