

Product datasheet for **SC314641**

DYRK1A (NM_001396) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	DYRK1A (NM_001396) Human Untagged Clone
Tag:	Tag Free
Symbol:	DYRK1A
Synonyms:	DYRK; DYRK1; HP86; MNB; MNBH; MRD7
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene sequence for NM_001396 edited
 AGGAAGCGGCGAGCGCCCGCCATCGTCCCCTGTTATAGTTTTGCCGCTGGACTCTTCCCTCCCTTCC
 CCCACCCCATCAGGATGATATGAGACTTGAAAGAAGACGATGCATACAGGAGGAGAGACTTCAGCATGCA
 AACCTTCATCTGTTCCGGCTTGCACCGTCATTTTCATTCATGCTGCTGGCCTTCAGATGGCTGGACAGAT
 GCCCCATTACATCAGTACAGTGACCGTCGCCAGCCAAACATAAGTGACCAACAGGTTTCTGCCTTATCA
 TATTCTGACCAGATTACGCAACCTCTAACTAACCAGGTGATGCCTGATATT :GTCATGTTACAGAGGCGG
 ATGCCCAAACCTTCCGTGACCCAGCAACTGCTCCCCTGAGAAAACCTTTCTGTTGACTTGATCAAAACAT
 ACAAGCATATTAATGAGGTTTACTATGCAAAAAAGGAAAGACACCAACAGGGCCAGGGAGACGATTC
 TAGTCATAAGAAGGAACGGAAGGTTTACATGATGGTTATGATGATGATAACTATGATTATATTGTA
 AACGGAGAAAAGTGGATGGATCGTTACGAAATTGACTCCTTGATAGGCAAAGGTTCTTTGGACAGGTTG
 TAAAGGCATATGATCGTGTGGAGCAAGAATGGGTTGCCATTAATAAAGAACAAGAAGGCTTTTCT
 GAATCAAGCACAGATAGAAGTGCGACTTCTTGAGCTCATGAACAAACATGACACTGAAATGAAATACTAC
 ATAGTGCAATTTGAAACGCCACTTTATGTTTCGAAACCATCTCTGTTTAGTTTTGAAATGCTGCTCTACA
 ACCTCTATGACTTGCTGAGAAACACCAATTTCCGAGGGGTCTCTTTGAACTAACACGAAAGTTTGGCGA
 ACAGATGTGACTGCACTGCTTTTCTTCCGACTCCAGAACTTAGTATCATTCACTGTGATCTAAAACCT
 GAAAATATCCTTCTTTGTAAACCCAAACGAGTCAATCAAGATAGTTGACTTTGGCAGTCTTGTGCA
 TGGGGCAGAGGATATACAGTATATTACAGTCCGCTTTATCGGTCTCCAGAGGTGCTACTGGGAATGCC
 TTATGACCTTGCCATTGATATGTGGTCCCTCGGGTGTATTTGGTTGAAATGCACACTGGAGAACCTCTG
 TTCAGTGGTGCCAATGAGGTAGATCAGATGAATAAAATAGTGGAAAGTTCTGGGTATTCCACCTGCTCATA
 TTCTTGACCAAGCACAAAAGCAAGAAAGTTCTTTGAGAAGTTGCCAGATGGCAGTTGGAACCTAAAGAA
 GACCAAGATGGAACCGGGAGTACAAACCACAGGAACCCGTAACCTTCAATAACATTCTTGAGTGGAA
 ACAGGAGGACCTGGTGGGCGACGTGCTGGGGAGTCAGGTACACGGTCCGCTGACTACTTGAAGTTCAAAG
 ACCTCATTTTAAGGATGCTTGATTATGACCCCAAACCTGAAATCAACCTTATTATGCTCTGCAGCACAG
 TTTCTTCAAGAAAACAGCTGATGAAGGTACAAATACAAGTAATAGTGTATCTACAAGCCCGCCATGGAG
 CAGTCTCAGTCTTCCGGCACACCTCCAGTACATCGTCAAGCTCAGGTGGCTCATCGGGGACAAGCAACA
 GTGGGAGAGCCCGGTCCGATCCGACGCACCAGCATCGGCACAGTGGTGGGCACTTACAGCTGCCGTGCA
 GGCCATGGACTGCGAGACACACAGTCCCCAGGTGCGTCAGCAATTTCTGCTCCTCTTGGTTGGTCAGGC
 ACTGAAGCTCCTACACAGGTCACTGTTGAAACTCATCCTGTTCAAGAAACAACCTTTTATGTAGCCCTC
 AACAGAATGCATTGCATCATCACCATGGTAACAGTTCATCACCATCACCACCACCACCACCATCACCA
 CCACCATGGACAACAAGCCTTGGGTAACCGGACCAGGCAAGGGTCTACAATTCTCAACGAATAGCTCC
 TCTACCAAGATTCTATGGAGGTTGGCCACAGTCACTCCATGACATCCCTGTCTTCTCAACGACTT
 CTTCTCGACATCTTCTCTCTACTGGTAACCAAGGCAATCAGGCCTACCAGAATCGCCAGTGGCTGC
 TAATACCTTGGACTTTGGACAGAATGGAGCTATGGACGTTAATTTGACCGTCTACTCCAATCCCCGCCAA
 GAGACTGGCATAGCTGGACATCCAACATACCAATTTTCTGCTAATACAGGTCTGACATTACATGACTG
 AAGGACATCTGACAATGAGGCAAGGGGCTGATAGAGAAGAGTCCCCATGACAGGAGTTTGTGTGCAACA
 GAGTCCTGTAGCTAGCTCGTGA

Restriction Sites: Please inquire

ACCN: NM_001396

Insert Size: 2400 bp

OTI Disclaimer:	<p>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.</p> <p>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</p>
OTI Annotation:	<p>The open reading frame of this TrueClone was fully sequenced and found to be a perfect match to the protein associated to this reference. This clone may be unstable or toxic at high copy number in common E. coli strain. We recommend using a lower copy number E. coli strain, such as CopyCutter strain (http://www.epibio.com/item.asp?ID=435) for transformation and plasmid preparation. Please be aware that the DNA yield could be low. Additional aliquots of this clone can be ordered from OriGene.</p>
Components:	<p>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).</p>
Reconstitution Method:	<ol style="list-style-type: none"> 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_001396.2 , NP_001387.2
RefSeq Size:	5010 bp
RefSeq ORF:	2292 bp
Locus ID:	1859
UniProt ID:	Q13627
Cytogenetics:	21q22.13
Domains:	pkinase, TyrKc, S_TKc
Protein Families:	Druggable Genome, Protein Kinase

Gene Summary:

This gene encodes a member of the Dual-specificity tyrosine phosphorylation-regulated kinase (DYRK) family. This member contains a nuclear targeting signal sequence, a protein kinase domain, a leucine zipper motif, and a highly conservative 13-consecutive-histidine repeat. It catalyzes its autophosphorylation on serine/threonine and tyrosine residues. It may play a significant role in a signaling pathway regulating cell proliferation and may be involved in brain development. This gene is a homolog of *Drosophila* *mnb* (minibrain) gene and rat *Dyrk* gene. It is localized in the Down syndrome critical region of chromosome 21, and is considered to be a strong candidate gene for learning defects associated with Down syndrome. Alternative splicing of this gene generates several transcript variants differing from each other either in the 5' UTR or in the 3' coding region. These variants encode at least five different isoforms. [provided by RefSeq, Jul 2008]

Transcript Variant: This variant (1) encodes the longest isoform (1). Sequence Note: The RefSeq transcript and protein were derived from genomic sequence to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on alignments.