

## Product datasheet for **SC309493**

### **DYRK1A (NM\_130438) Human Untagged Clone**

#### **Product data:**

|                           |   |
|---------------------------|---|
| Product Type:             | Expression Plasmids                     |
| Product Name:             | DYRK1A (NM_130438) Human Untagged Clone |
| Tag:                      | Tag Free                                |
| Symbol:                   | DYRK1A                                  |
| Synonyms:                 | DYRK; DYRK1; HP86; MNB; MNBH; MRD7      |
| Mammalian Cell Selection: | Neomycin                                |
| Vector:                   | pCMV6-Entry (PS100001)                  |
| E. coli Selection:        | Kanamycin (25 ug/mL)                    |



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**Fully Sequenced ORF:** >SC309493 representing NM\_130438.  
 Blue=Insert sequence Red=Cloning site Green=Tag(s)

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GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTGACTG
GATCCGGTACCGAGGAGATCTGCCGCCCGCATCGCC
ATGCATACAGGAGGAGACTTCAGCATGCAAACCTTCATCTGTTTCGGCTTGACCCGTCATTTTCATTC
CATGCTGCTGGCCTTCAGATGGCTGGACAGATGCCCCATTACATCAGTACAGTACCGTCGCCAGCCA
AACATAAGTGACCAACAGGTTTCTGCCTTATCATATTCTGACCAGATTACGCAACCTCTAACTAACCAG
GTGATGCCTGATATTGTATGTTACAGAGGCGGATGCCCAAACCTTCCGTGACCAGCAACTGCTCCC
CTGAGAAAACCTTCTGTTGACTTGATCAAAACATAACAAGCATATTAATGAGGTTTACTATGCAAAAAAG
AAGCGAAGACACCAACAGGGCCAGGAGACGATTCTAGTCATAAGAAGGAACGGAAGTTTACAATGAT
GGTTATGATGATAACTATGATTATATTGTAACAAACGAGAAAGTGGATGGATCGTTACGAAATT
GACTCCTTGATAGGCAAGGTTCTTTGGACAGGTTGTAAGGCATATGATCGTGTGGAGCAAGAATGG
GTTGCCATTAATAAAGAACAAGAAGGCTTTTCTGAATCAAGCACAGATAGAAGTGCAGCTTCTT
GAGCTCATGAACAAACATGACACTGAAATGAAATACTACATAGTGCATTTGAAACGCCACTTTATGTTT
CGAAACCATCTCTGTTTGTGTTTGTAAATGCTGCTTACAACTCTATGACTTGTGAGAAACACCAAT
TTCGAGGGGTCTCTTTGAACCTAACACGAAAGTTTGGCAACAGATGTGCACTGCACTGCTTTTCTT
GCGACTCCAGAACTTAGTATCATTCACTGTGATCTAAACCTGAAAATATCCTTCTTTGTAACCCAAA
CGCAGTGCAATCAAGATAGTTGACTTTGGCAGTCTTGTGAGTTGGGGCAGAGGATATACCAGTATATT
CAGAGTCGCTTTTATCGGTCTCCAGAGGTGCTACTGGGAATGCCTTATGACCTTGCCATTGATATGTGG
TCCCTCGGGTGTATTTGGTTGAAATGCACACTGGAGAACCTCTGTTCAAGTGGTCCCAATGAGGTAGAT
CAGATGAATAAAAATAGTGAAGTTCTGGGTATCCACCTGCTCATATTCTTGACCAAGCACAAAAGCA
AGAAAGTTCTTTGAGAAGTTGCCAGATGGCACTTGGAACTTAAAGAAGACCAAAAGATGAAAACGGGAG
TACAAACCACCAGGAACCGTAAACTTCAACATTCTTGGAGTGGAAACAGGAGGACCTGGTGGGCGA
CGTGCTGGGGAGTCAGGTACATACGGTCGCTGACTACTGAAAGTTCAAAGACCTCATTTTAAGGATGCTT
GATTATGACCCCAAACTCGAATTCAACCTTATTATGCTCTGCAGCACAGTTTCTTCAAGAAAACAGCT
GATGAAGGTACAATAACAAGTAATAGTGTATCTACAAGCCCCGCATGGAGCAGTCTCAGTCTTCGGGC
ACCACCTCAGTACATCGTCAAGCTCAGGTGCGTCAGCAATTTCTGCTCCTCTTGGTTGGTCAGGCAC
TGA
ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGGCCGCGC
  
```

**Restriction Sites:** SgfI-MluI

**ACCN:** NM\_130438

**Insert Size:** 1590 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](#)

|                               |  |
|-------------------------------|--|
| <b>OTI Annotation:</b>        | This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.   |
| <b>Components:</b>            | 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).   |
| <b>Reconstitution Method:</b> | <ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>  |
| <b>RefSeq:</b>                | <a href="#">NM_130438.2</a>  |
| <b>RefSeq Size:</b>           | 5088 bp  |
| <b>RefSeq ORF:</b>            | 1590 bp  |
| <b>Locus ID:</b>              | 1859   |
| <b>UniProt ID:</b>            | <a href="#">Q13627</a>   |
| <b>Cytogenetics:</b>          | 21q22.13   |
| <b>Protein Families:</b>      | Druggable Genome, Protein Kinase   |
| <b>MW:</b>                    | 60.3 kDa   |
| <b>Gene Summary:</b>          | <p>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 <i>Drosophila</i> <i>mbn</i> (minibrain) gene and rat <i>Dyrk</i> 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]</p> <p>Transcript Variant: This variant (5) lacks a 3' coding exon, as compared to variant 1. It encodes a 234 aa shorter isoform which lacks the poly-His domain and has a different C-terminus, compared to isoform 1.</p> |