

Product datasheet for **RC213280**

DYRK1A (NM_130438) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	DYRK1A (NM_130438) Human Tagged ORF Clone
Tag:	Myc-DDK
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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ORF Nucleotide Sequence:

>RC213280 representing NM_130438
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGCATACAGGAGAGACTTCAGCATGCAAACCTTCATCTGTTGCGCTTGCACCGTCATTTTCATTCC
 ATGCTGCTGGCCTTCAGATGGCTGGACAGATGCCCCATTACATCAGTACAGTGACCGTCCGACGCCAAA
 CATAAGTGACCAACAGGTTTCTGCCTTATCATATTCTGACCAGATTTCAGCAACCTCTAACTAACCGGTG
 ATGCCTGATATTGTCATGTTACAGAGCGGATGCCCAAACCTCCGTGACCCAGCAACTGCTCCCTGA
 GAAAACTTTCTGTTGACTTGATCAAACATACAAGCATATTAATGAGGTTTACTATGCAAAAAAGAAGCG
 AAGACACCAACAGGGCCAGGGAGACGATTCTAGTCATAAGAAGGAACGGAAGTTTACAATGATGGTTAT
 GATGATGATAACTATGATTATATTGTA AAAAACGGAGAAAAGTGGATGGATCGTTACGAAATTGACTCCT
 TGATAGGCAAAGTTCCCTTTGGACAGTTGTAAGGCATATGATCGTGTGGAGCAAGAATGGGTTGCCAT
 TAAAAATAAAGAACAAGAAGGCTTTTCTGAATCAAGCACAGATAGAAGTGCGACTTCTTGAGCTCATG
 AACAAACATGACTGAAATGAAATACTACATAGTGCATTTGAAACGCCACTTTATGTTTCGAAACCATC
 TCTGTTTAGTTTTGAAATGCTGTCCTACAACCTCTATGACTTGCTGAGAAACACCAATTTCCGAGGGGT
 CTCTTTGAACCTAACACGAAAGTTTGGCAACAGATGTGCACTGCACTGCTTTTCTTGGCACTCCAGAA
 CTTAGTATCATTCACTGTGATCTAAAACCTGAAAAATCCTTCTTTGTAACCCCAAACGCAGTGCAATCA
 AGATAGTTGACTTTGGCAGTTCTTGTGAGTTGGGGCAGAGGATATACCAGTATATTCAGAGTCGCTTTTA
 TCGGTCTCCAGAGGTGCTACTGGAAATGCCTTATGACCTTGCCATTGATATGTGGTCCCTCGGGTGATT
 TTGGTTGAAATGCACACTGGAGAACCTGTGTCAGTGGTCCCAATGAGGTAGATCAGATGAATAAAATAG
 TGGAACTCTGGGTATCCACCTGCTCATATTCTTGACCAACCAAAAGCAAGAAAGTCTTTTGAGAA
 GTTGCCAGATGGCACTTGGAACTTAAAGAAGACCAAAAGATGGA AAAACGGGAGTACAAACCACAGGAACC
 CGTAAACTTCATAACATTCTGGAGTGGAAACAGGAGGACCTGGTGGGGACGTGCTGGGGAGTCAGGTC
 ATACGGTCGCTGACTACTGAAGTTCAAAGACCTCATTTTAAGGATGCTTGATTATGACCCAAAACCTCG
 AATTCAACCTTATTATGCTCTGCAGCACAGTTTCTTCAAGAAAACAGCTGATGAAGGTACAAATACAAGT
 AATAGTGTATCTACAAGCCCGCCATGGAGCAGTCTCAGTCTTGGGGACCACCTCCAGTACATCGTCAA
 GCTCAGGTGCGTCAGCAATTTCTGCTCCTCTTGGTTGGTCAGGCAC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC213280 representing NM_130438
 Red=Cloning site Green=Tags(s)

MHTGGETSACKPSSVRLAPSFSHAAGLQ MAGQMPHSHQYSDRRQPNI SDQQVSALSYSDQIQQPLTNQV
 MPDIVMLQRRMPQTFRDPATAPLRKLSVDLIKTYKHINEVYYAKKKRRHQGGDDSSHKKERKVYNDGY
 DDDNYDYIVKNGEKWMDRYEIDSLIGKSFQVVKAYDRVEQEWA IKIKNKKAFLNQAQIEVRLLELM
 NKHDTEMKYYIVHLKRHFMRNHLCLVFEMLSYNLYDLLRNTNFRGVSLNLTRKFAQQMCTALLFLATPE
 LSI IHCDLKPENILL CNPKRSAIKIVDFGSSCQLGQRIYQYIQSRFYRSPEVLLGMPYDLAIDMWSLGC I
 LVEMHTGEPLFSGANEVDQMNKIVEVLGIPPAHILDQAPKARKFFEKL PDGTWNLKTKDKGREYKPPGT
 RKLHNI LGVETGGPGRRAGESGHTVADYLFKFDLILRMLDYDPKTRIQPYALQHSFFKKTAD EGTNTS
 NSVSTSPAMEQSQSSGTTSSSTSSSGASAISSSWLVRH

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mg4186_g01.zip

Restriction Sites:

SgfI-MluI

Cloning Scheme:


ACCN: NM_130438

ORF Size: 1587 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 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).

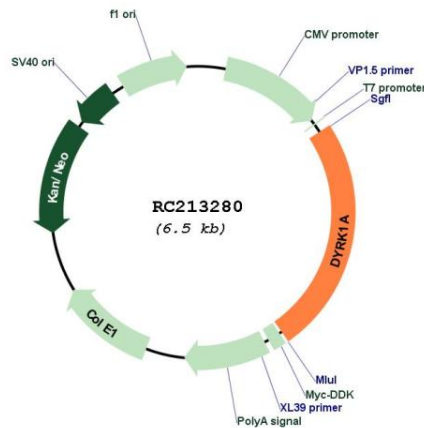
- Reconstitution Method:**
1. Centrifuge at 5,000xg for 5min.
 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
 3. Close the tube and incubate for 10 minutes at room temperature.
 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the 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_130438.2](#), [NP_569122.1](#)

RefSeq Size: 4886 bp
RefSeq ORF: 1590 bp
Locus ID: 1859
UniProt ID: [Q13627](#)
Cytogenetics: 21q22.13
Protein Families: Druggable Genome, Protein Kinase
MW: 60.1 kDa

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]

Product images:



Circular map for RC213280