

Product datasheet for **MG222954**

Dyrk1a (NM_001113389) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Dyrk1a (NM_001113389) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Dyrk1a
Synonyms:	2310043O08Rik; D16Ertd272e; D16Ertd493e; Dyrk; ENSMUSG00000074897; Gm10783; mmb; Mnbh; Mp86
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide
Sequence:

>MG222954 representing NM_001113389
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTGCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGCATACAGGAGAGAGACTTCAGCATGCAAACCTTCATCTGTCCGGCTTGCACCGTCGTTCTCATTCC
 ATGCTGCTGGCCTTCAGATGGCTGCACAGATGCCCACTCACACCAGTACAGTGACCGTCGCCAGCCGAG
 CATAAGTGACCAGCAGGTGTCTGCCTTACCATATTCTGACCAGATTTCAGCAACCTCTAACTAACCAGGTG
 ATGCCTGACATTGTCATGTTACAGAGGCGGATGCCCAAACCTTCGGTATCCAGCAACTGCTCCTCTGA
 GAAAACCTCTGTGGACTTGATCAAACATACAAGCATATTAATGAGGTTTACTATGCAAAAAAGAAGCG
 AAGACACCAACAGGGCCAGGGGACGATTCCAGTCATAAGAAGGAGCGGAAGTTTACAATGATGGTTAC
 GATGATGATAACTATGATTATATTGTA AAAAACGGGAAAAGTGGATGGATCGGTATGAAATCGACTCCT
 TAATAGGCAAAGTTTCAATTTGGACAGTTGTGAAAGCTTATGACAGAGTGGAGCAAGAATGGGTCGCCAT
 TAAAATCATCAAGAACAAGAAAGCGTTTCTGAATCAAGCCAGATAGAAGTGCAGGCTGCTTGAGCTCATG
 AACAAACACGACTGAAATGAAGTACTACATAGTGCATTTGAAACGCCACTTTATGTTTCGAAACCATC
 TCTGTTTGTGTTTGAATGCTGTCCTATAATCTCTATGATTTGTTGAGAAACACCAACTCCGAGGGGT
 CTCTTTGAACCTAACACGAAAGTTTGCACAACAGATGTGCACAGCATTGCTTTTTCTTGCAGCTCCAGAA
 CTTAGTATCATTCACTGTGACTTAAAGCCTGAGAACATCCTTCTGTGTAACCCCAAACGGAGTGCAATCA
 AGATTGTTGATTTTGGCAGCTCTGTGAGTTGGGGCAGAGGATATACCAGTATATTCAGAGTCGCTTTTA
 TCGGTCTCCAGAGGTGCTACTGGGAATGCCTTATGACCTTGCTATCGACATGTGGTCCCTTGGATGATC
 TTGGTTGAAATGCACACTGGAGAGCCTCTGTTTCAGTGGTGCCAATGAGGTCGATCAGATGAATAAAATAG
 TGGAACTCTGGGCATCCACCTGCTCATATTCTTGACCAAGCACCAGAAAGCAAGAAAGTTCTTTGAGAA
 GTTGCCCGATGGCACTTGGAGCTTAAAGAAGACCAAGATGGA AAAACGGGAGTACA AACACCAGGAACC
 CGTAAACTTCATAATATTCTTGGAGTAGAAACAGGAGGACCTGGCGGGCGCGTCTGGGGAATCGGGTC
 ATACTGTAGTGACTACTTGAAGTTCAAAGACCTCATTTTAAGGATGCTTGATTATGACCCAAAACCTCG
 GATTCAACCTTATTATGCCCTGCAGCACAGTTTTTTCAAGAAAACAGCTGATGAAGGTACCAACACAAGT
 AACAGTGTGTCTACCAGCCCTGCGATGGAGCAGTCTCAGTCTTCAGGCACCACCTCCAGCACCTCCTCCA
 GCTCAGGTGGATCCTCGGAACGAGTAACAGTGGGAGAGCCAGGTCGGATCCGACGCACCAGCATCGACA
 CAGCGGTGGACACTTCGCTGCTGCTGTCCAGGCCATGGACTGTGAGACACACAGTCCCAGGTGCGCCAG
 CAGTTTCCGGCTCCTCTGGGATGGTCAGGCACTGAAGCTCTACACAAGTCACTGTTGAAACTCATCCTG
 TTCAAGAGACAACCTTTTATGTAGCCCCCAAGCAGAAACGATTGCATCATCACCATGGA AACAGTCCCA
 TCACCACCACCACCACCATCACCACCACCACCACCATGGACAGCAAGCCTTGGGTAACCGGACCAGGCCA
 AGGGTCTACAATTTCTCAACAAATAGCTCCTTACCCAGGATTCTATGGAGGTTGGCCACAGTCAACACT
 CCATGACATCCCTGTCTTCTCAACAACCTTCTTCTCGACATCTTCTCCTCTACTGGTAATCAAGGCAA
 TCAGGCCTATCAGAACCGCCAGTGGCTGCTAACACCTTGGACTTTGGACAGAATGGAGCTATGGACGTT
 AATTTGACCGTCTACTCCAATCCCCGCCAAGAGACTGGCATAGCTGGACATCCAACATACCAATTTTCTG
 CTAATACAGGTCTGCACATTACATGACTGAAGGACATCTGGCGATGAGACAAGGGGCTGATAGAGAAGA
 GTCTCCATGACAGGAGTTTGTGTGCAACAGAGTCTGTAGCTAGCTCG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG222954 representing NM_001113389
 Red=Cloning site Green=Tags(s)

MHTGGETSACKPSSVRLAPSFHAAQLQMAAQMPHSHQYSDRRQPSISDQQVSALPYSQIQPLTNQV
 MPDIVMLQRRMPQTFRDPATAPLRKLSVDLIKTYKHINEVYAKKKRRHQGGDDSSHKKERKVYNDGY
 DDDNYDYIVKNGEKWMDRYEIDSLIGKGSFGQVVKAYDRVEQEWAIAIKIKNKAFLNQAQIEVRLLLELM
 NKHDTEMKYYIVHLKRHFMRNHLCLVFEMLSYNLYDLLRNTNFRGVSLNLTRKFAQQMCTALLFLATPE
 LSIHCDLKPENILLCNPKRSAIKIVDFGSSCQLGQRIYQYIQSRFYRSPEVLLGMPYDLAIDMWSLGCIL
 LVEHMTGEPLFSGANEVDQMNKIVEVLGIPPAHILDQAPKARKFFFEKLPDGTWSLKTKDKGREYKPPGT
 RKLHNLGVETGGPGRRAGESGHTVADYLKFKDLILRMLDYDPKTRIQPYALQHSFFKTADEGTNTS
 NSVSTSPAMEQSQSSGTTSSSSSSGGSSGTSNSGRARSDPTHQHRHSGGHFAAVQAMDCETHSPQVRQ
 QFPAPLWGSGETAQTQVTHPVQETTFHVAPQQNALHHHHGNSHHHHHHHHHHHHHGGQALGNRTRP
 RYVNSPTNSSSTQDSMEVGHSHHSMTLSSTTSSSTSSSTGNQGNQAYQNRPAANTLDFGQNGAMDV
 NLTVYSNPRQETGIAGHPTYQFSANTGPAHYMTEGHLAMRQADREESPMTGVCVQQSPVASS

TRTRPLE - GFP Tag - V

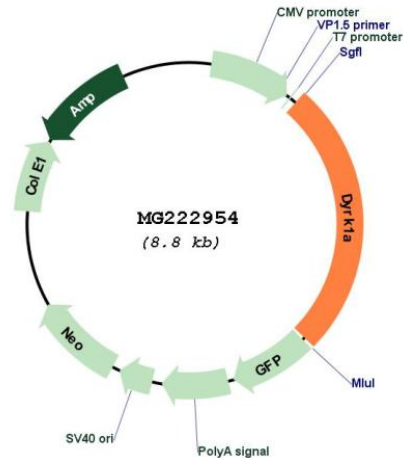
Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN: NM_001113389

ORF Size: 2289 bp

OTI Disclaimer: 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_001113389.1](#), [NP_001106860.1](#)

RefSeq Size: 5776 bp

RefSeq ORF: 2292 bp

Locus ID: 13548

UniProt ID: [Q61214](#)

Cytogenetics: 16 55.3 cM

Gene Summary: Dual-specificity kinase which possesses both serine/threonine and tyrosine kinase activities. May play a role in a signaling pathway regulating nuclear functions of cell proliferation. Modulates alternative splicing by phosphorylating the splice factor SRSF6 (By similarity). Exhibits a substrate preference for proline at position P+1 and arginine at position P-3. Has pro-survival function and negatively regulates the apoptotic process. Promotes cell survival upon genotoxic stress through phosphorylation of SIRT1. This in turn inhibits TP53 activity and apoptosis (PubMed:20167603).[UniProtKB/Swiss-Prot Function]