

Product datasheet for **MG216539**

Dyrk1b (NM_010092) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Dyrk1b (NM_010092) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Dyrk1b
Synonyms:	Mirk
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG216539 representing NM_010092
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCCGTCACCAGGCCATGGTCTTTCTCTGGCTTTCCGGGGCCCCAGGAACACACACAGTACTAC
 CTGATGTGCGGCTCCTGCCCGGAGACTGCCCTGGCCTTCCGGGATGCGGCCTCAGCCCCGCTGCGCAA
 GCTCTCGGTGGACCTCATCAAGACCTACAAGCACATCAATGAGGTATACTATGCGAAGAAGAAGCGGCGG
 GCCAACAGGCGCCACCCAGGACTCGAGCACAAAAGGAGAAGAAGGTCTGAACCACGGTTATGATG
 ACGACAACCAGACTACATTGTGCGCAGTGGCAGCGCTGGTAGAGCGCTATGAGATTGACTCTTTAT
 TGGCAAAGGCTCCTTTGGCCAGGTGGTAAAGCCTATGATCACCAGACTCAGGAGCTGGTGGCCATCAAG
 ATCATCAAGAACAAAAGGCCTTCTGAACCAGGCACAGATTGAGCTACGGCTGTGGAGCTGATGAACC
 AGCATGATACAGAGATGAAGTACTACATAGTACACCTTAAGCGGCACTTCATGTTCCGGAATCACCTGTG
 CCTGGTGTGGAGCTGCTCCTACAACCTGTACGACCTCCTCCGCAACACACACTTTCCGGGTGTCTCA
 CTGAACCTGACGAGGAAGCTGGCACAGCAGCTCTGCACAGCTCTGCTCTTTCTGGCCACCCCGAGCTCA
 GCATCATCCACTGCGACCTCAAGCCTGAGAACATCCTGCTCTGCAACCCCAAGCGCAGTGCCATCAAGAT
 CGTGGACTTCCGCGAGTTCCTGCCAGCTTGGCCAGCGGATCTACCAGTATATCCAGAGCCGCTTCTACCGC
 TCACCCGAGGTGCTCCTGGGTACACCCTATGACCTGGCCATTGACATGTGGTCCCTGGGCTGCATCCTCG
 TGGAGATGCACACCGGAGAGCCCTCTTCAGTGGCTCTAATGAGGTGGACCAGATGAGCCGATTGTGGA
 GGTGTTGGGATCCCTCCCGCACCCATGCTGGAACAGGCACCCAAAGGCTCGAAAGTACTTTGAGCGGCTG
 CCTGGGGTGGCTGGACCCTACGAAGGACAAAGAACTCAGGAAGGACCTGGTGTGCGCATGCTGGAAT
 ATGAGCCCGCCGCCGCATCAGCCCTCTGGCGCTCTGCAGCATGGCTTCTCCGCGCGCCCTTGACACCTGCCCTCC
 GGCACCAACACGGGCCCGGCGAGCAGCAGTGCCTCCACCTCGCCGCGCCCTTGACACCTGCCCTCC
 TCTAGCACCGCCAGCTCCATCTCCAGCTCTGGAGTTCAGTGGCTCCTCCAACGACAACAGAGCCTACC
 GATACAGCAACCGATATTGTGGGGGCCAGGGCCCCCATCACTGACTGTGAGATGAACAGCCCCCAGGT
 CCTACCCTCCCAGCCTCTGCGCCCTGGGCGGGGTGATGTGCCCCACAAGACACATCAAGCCCCATC
 TCTGCCTCAACATTGCCGGGACTGGGGCTCAGTTACCCCATTCGCCCGTTGCCTTGGACGACCCCAT
 CACCAACATCACCACCACCCAGAGTTGATGGATGTGAGCCTGGTGGGAGCCCTCCAGACTGCTCTCC
 ACCTCCTCAGCAGCTGCCCCAGCAGCCGGTGCCTCAGCCCTCCGGACTCGGATGACAGGAGGTGGA
 CCACCTCTCCACCCCTGATGACCCTGCCACTCTGGGGCTCGCTGGGTCTCCATGGTGTACCCAGA
 GCACAGCAGCCAGCTCA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>MG216539 representing NM_010092
 Red=Cloning site Green=Tags(s)

MAVPPGHGPFSGFPGPQEHTQVLPDVRLLPRLPLAFRDAASAPLRKLSVDLIKTYKHINEVYYAKKRR
 AQQAPPQDSSTKKEKVLNHYDDNDHYIVRSGERWLERYEIDSLIGKGSFGVVKAYDHQTQELVAIK
 I IKNKKAFLNQAQIELRLELMNQHDTEMKYYIVHLKRHFMRNHLCLVFELLSYNLYDLLRNTHFRGVS
 LNLTRKLAQQLCTALLFLATPELSIIHCDLKPENILLNPKRSAIKIVDFGSSCQLGQRIYQYIQSRFYR
 SPEVLLGTPYDLAIDMWSLGCILVEMHTGEPLFSGSNEVDQMSRIVEVLGIPPAPMLEQAPKARKYFERL
 PGGWTLRRTKELRKDLVLRMLEYEPAAARISPLGALQHGFRRRTADEATNTGPAGSSASTSPAPLDTCP
 SSTASSISSSGSSGSSNDNRAYRYSNRYCGGPPPIITDCMNSPQVLPSPQLRPWAGGDVPHKTHQAPI
 SASTLPGTGAQLPPLPRCLGRPPSPTSPPPPELMDVSLVGSPPDCSPPPPAPAPQHPAASALRTRMTGGR
 PPLPPDDPATLGPRLGLHGVPQSTAASS

TRTRPLE - GFP Tag - V

Restriction Sites:

SgfI-MluI

Cloning Scheme:



ACCN: NM_010092

ORF Size: 1767 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_010092.2](#), [NP_034222.1](#)

RefSeq Size: 2018 bp

RefSeq ORF: 1770 bp

Locus ID: 13549

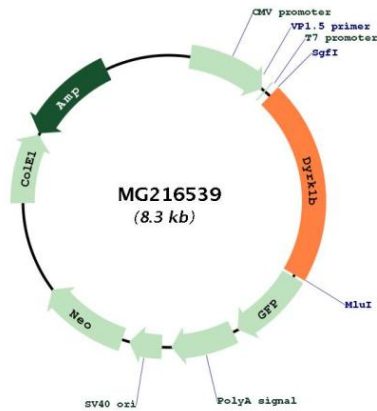
UniProt ID: [Q9Z188](#)

Cytogenetics: 7 A3

Gene Summary:

Dual-specificity kinase which possesses both serine/threonine and tyrosine kinase activity. Enhances the transcriptional activity of TCF1/HNF1A and FOXO1. Inhibits epithelial cell migration. Mediates colon carcinoma cell survival in mitogen-poor environments. Inhibits the SHH and WNT1 pathways, thereby enhancing adipogenesis. In addition, promotes expression of the gluconeogenic enzyme glucose-6-phosphatase (G6PC).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MG216539