

Product datasheet for **MG215994**

Diaph1 (NM_007858) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Diaph1 (NM_007858) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Diaph1
Synonyms:	D18Wsu154; D18Wsu154e; Di; Dia1; Diap1; Drf; Drf1; mDi; p140m; p140mDia
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG215994 representing NM_007858, codon optimized . Due to the complexity of NM_007858, the ORF clone is codon optimized for mammalian Expression. The nucleotide sequence differs from the reference sequence, yet the amino acid sequence remains identical.

Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGGAGCCATCCGGAGGAGGACTTGGACCCGGTCGGGGAACACGCGACAAGAAGAAAGGTCGGTCCCTG
ACGAGTTCCTGCTACGGGAGGTGACGGTGGTAAGCATAAAAATTCCTCGAGAGTTCACTTCAATGCG
GATTAAGAAAGAAAAGGAAAAGCCAACTCCGCTCACCGAAACAGTTCTGCCAGTTACGGAGACGACCCC
ACCGCCAAAGCCTGCAGGATATTTCCGACGAGCAAGTGCTTGTGCTTTTCGAGCAGATGCTGGTTGACA
TGAACCTTAATGAAGAGAAGCAGCAGCCCTGAGAGAGAAAGACATCGTTATTAAGAGAGAAATGGTGAG
TCAGTACCTGCACACCAGCAAAGCTGGGATGAACCAGAAGGAGAGCTCTAGATCCGCTATGATGTACATT
CAAGAAGTGAATCTGGCCTGCGGATATGCATCTCCTGTCTTGTCTGGAGAGCCTGAGAGTGAGCCTGA
ACAACAACCCAGTAAGTTGGTCCAACATTCGGGCGAGAAGTTGGCTAGCCTGGACATTCTCAA
ACGGCTGCACGACGAAAAGGAGGAAACATCCGGGAATTATGATTCCCGCAACCAGCAGCAGATCATAAGG
TGCTGAAGGCGTTTCATGAACAACAAGTTCCGCATAAAGACCATGCTCGAAACCGAGGAGGCATTCTTT
TGCTGGTCCGCGCCATGGATCCAGCCGTCCTAACATGATGATTGATGCTGCGAAACTTCTCTGCCCT
GTGTATCCTGCCTCAGCCTGAGGATATGAACGAAAGGGTCTCGAAGCTATGACTGAACGGGCGGAAATG
GACGAGGTCGAGAGGTTCCAGCCCTTCTGGATGGGTTGAAGTCTGGAATTCTATCGCACTCAAGGTCG
GTTGTCTCAACTGATCAACGCGCTGATTACCCCGCAGGAGCTGGATTTCCGCGTGCACATAAGATC
AGAGCTGATGAGGCTCGCCTGCATCAGGACTCCAAGAGCTGCGCGAGATCGAAAACGAAGACATGAAG
GTCAGCTCTGTGTTCGATGAACAGGGCGACGAGGACTTTTTTATCTCAAGGACGCTTGGACGACA



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TCCGCATGGAATGGATGATTTTGGAGAAGTGTTCCAGATCATCCTGAACACAGTTAAAGATTCTAAAGC
 CGAACCACATTTTTTGGATATTCTGCAGCATCTGCTCCTGGTGAGGAACGACTACGAAGCACGACCCCAA
 TACTATAAGCTCATTGAAGAATGCGTTTACAGATTGTCTGCATAAAGATGGGACCGATCCGGATTTCA
 AGTGTAGGCACCTTCAGATCGATATCGAGCGGCTCGTGCACCAATGATTGATAAGACCAAGGTGGAAAA
 GAGTGAGGCTAAGGCTACCGAAGTGGAGAAGAAGCTTGATAGTGAACACTGCCAGGCACGAGCTGCAG
 GTCGAGATGAAGAAGATGAAAAAGACTTTGAACAAAAACTGCAGGACTGCAGGGGAGAAGGATGCC
 TCGACTCAGAAAAGCAACAGATTACCGTCAAGAAACAAGATCTGGAAGCTGAGGTTTCAAGCTTACGGG
 AGAAGTCGAAAAGCTGAGCAAGGAGCTTGAAGATGCCAAGAACGAGATGGCGAGCCTGTCAGCGGTGGTG
 GTCGCTCCTTCCGTGCTTCTAGCGCAGCCGTGCCCCCTGCCCCCGCTTCCGGGAGATTCTGGGACCG
 TGATACCGCCACCCCAACCCCAACCGCTGCCTGGCGGGTCTGTCGCCCTTACCACCCTCCCTCC
 TGGTACATGCATCCACCTCCCTCCCTTCTGGCGGTGCGTGTATTCCCGGCCACCTCAGTTGCC
 GGTAGTGTGCCATCCCAACCTCCGCCACTCCCGGGTGCAGCAAGATTCCCTCCGCTCCTCTCC
 CAGGCGCAGCCGAATCCGCTCCTCCTCCCTGCCCGTCAACCGCAATCCACCTCCCAACCTCCCTCC
 TCCTGGCGGTACCGCATCCCGCCCTCCACCTCCTTTGCCCGCAGTGTGGAGTGCCTCCACCTCCG
 CCGCTGCCCGGAGACCCGGGCTCCCTCCTCCGCTCCGCTTCCAGGGGCCAGGCATTCCCTCCTC
 CCCTCCCGGATGGGAGTCCCAACCGCTCCTCATTCCGTTTCCGAGTGCAGCAGCCCGCTCCCTGCC
 GTTTGGCCTCACCCCAAAAAGTTTAAAGCCTGAGGTGCAGCTCAGAAGGCCAAATTGGTCTAAGTTT
 GTGGCGGAAGATCTTAGCCAGGACTGCTTCTGGACAAAGTGAAGGAAGACCGATTTGAGAATAACGAAC
 TTTTCGTAAGCTCACCTGGCATTCTCAGCACAGACCAAGACTTCTAAAGCAAAAAGGATCAGGAGGG
 GGGCGAGGAAAAAAGTGTCAAAGAAGAAGTAAAGAGCTGAAAGTCTTGATAGCAAACTGCC
 CAGAACCTCTCTATCTTCCGCGTATTCCGCATGCCTTACCAGGAGATCAAAAATGTCATTCTTGAGG
 TGAATGAGGCAGTGTGACGGAGAGCATGATCCAAAATCTTATCAAGCAGATGCCGAGCCGGAGCAGT
 CAAGATGCTCTCTGAGCTGAAGGAAGAATACGACGACTTGCCCGAGTCTGAGCAATTCGGTGGTAAATG
 GGGACCGTACCTCGCTGCGACCCGACTTAACGCGATCCTGTTTAAACTCCAGTTTTTCCAGCAAGTTG
 AGAATATCAAACCTGAGATCGTGAGTGTGACTGCAGCTTGCAGGAACTCAGGAAGTCCGAAAATCTC
 CAGCTTGTGGAGCTCACCTGCTTGTAGGAACTATATGAATGCCGGAAGCCGGAACGCGGGCGCTTT
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 ACTTCTCGCGAACTGTGCGAAAACGACCATCCCGAGGTTCTCAAATCCCGACGAACTCGCCACGT
 CGAGAAGGCAAGCAGAGTCTCAGCTGAGAATCTGCAAAAGTCCCTCGACCAGATGAAAAGCAGATAGCT
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 CCTCCTTCGTCAAGGACGCCAGGAGCAATACAATAAGTTGAGGATGATGCACAGCAACATGAAAACCT
 GTATAAGGAACTCGGCGATTATTTTGTGTCGACCCCAAGAAGCTGAGTGTGAGGAGTTTTTATGGAC
 CTCCATAATTTTAGAAATATGTTTTTGAAGCCGTCAAGGAGAATCAGAAACGCAGGGAAAACCGAAGAGA
 AAATGAGACGAGCCAAGCTCGCAAAGGAGAAGGCAGAAAAGGAACGCCTTGAGAAGCAGCAGAAAAGGGA
 ACAGCTGATTGATATGAACGCTGAAGGCGACGAAACCGGAGTGTGGATTCCCTGTTGGAGGCCCTCAA
 AGCGGCGCCGATTCCGGCGAAAGAGGGGCCAGACAGGTAACCGCAAGGCTGGCTGCGCTGTGACTT
 CTCTGCTTGCAGCGAGTTGACCAAGACGATGCCATGGCTCCCGACCTGTGAAAGTACCAAAAAGTC
 TGAGGGCGTGCCGACGATTCTGGAAGAAGCCAAGGAGCTGGTTGGGAGAGCCAGC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG215994 representing NM_007858
 Red=Cloning site Green=Tags(s)

MEPSGGGLGPRGTRDKKKGRSPDELPATGGDGGKHKKFLERFTSMRIKKEKEKPNSAHRNSSASYGDDP
 TAQSLQDISDEQVLVFEQMLVDMNLNEEKQQLREKDIVIKREMVSYQLHTSKAGMNQKESRSAMMYI
 QELRSGLRDMHLLSCLESLRVSLNPNVSWVQTFGAEGLASLLDILKRLHDEKEETSGNYDSRNQHEIIR
 CLKAFMNNKFGIKTMLETEEGILLVRAMDPVAVPMMIDAAKLLSALCILPQPEDMNERVLEAMTERAEM
 DEVERFQPLLDGLKSGTSIALKVGCLQLINALITPAEELDFRVHIRSELMRLGLHQVLQELREIENEDMK
 VQLCVFDEQGDDEFFDLKGRLLDIRMEMDDFGEVFIILNTVKDSKAEPHFLSILQHLLLVRNDYARPQ
 YYKLIIECVSQIVLHKNGTDPDFKCRHLQIDIERLVDQMIDKTKVEKSEAKATELEKKLDSEL TARHELQ
 VEMKMKMENDFEQKLQDLQGEKDALDSEKQQITAQKQDLEAEVSKLTGEVAKLSKELEDAKNEMASLSAVV
 VAPSVSSAAVPPAPPLPGSGTVIPPPPPPPPLPGGVVPPSPPLPPGTCIPPPPPPLPGGACIPPPQPLP
 GSAAIPPPPLPGVASIPPPPLPGATAIPPPPLPGATAIPPPPLPGGTGIPPPPPPLPGSVGVPPPP
 PLPGGGLPPPPPPFGAPGIPPPPPGMGVPPPPFGFVPAAPVLPFGLTPKKVYKPEVQLRRPNWSKF
 VAEDLSQDCFWTKVKEDRFENNELFAKLTLAFSAQTKTSKAKKDQEGGEEKSVQKKVKELKVLDSKTA
 QNLSIFLGSFRMPYQEIKNVILEVNEAVLTESMIQNLIKQMPPEQLKMLSELKEEYDDLAESEQFVVM
 GTVPRLRPRLNAILFKLQFSEQVENIKPEIVSVTAACEELRKSENFSSLELTLVGNMAGSRNAGAF
 GFNISFLCKLRDTKSADQKMTLLHFLAELCENDHPEVLKFPDEL AHVEKASRVS AENLQKSLDQMKKQIA
 DVERDVQNFPAATDEKDKFVEKMTSFVKDAQEQYNKLRMMHNSMETLYKELGDYFVDFPKKLSVEEFFMD
 LHNFRNMFQAVKENQKRRETEEKMRRAKLAKEKA EKERLEKQKREQLIDMNAEGDETGVMSLLEALQ
 SGAAFRKRGRPRQVNRKAGCAVTSLLASELTKDDAMAGPVKVPKKSEGVP T ILEEKELVGRAS

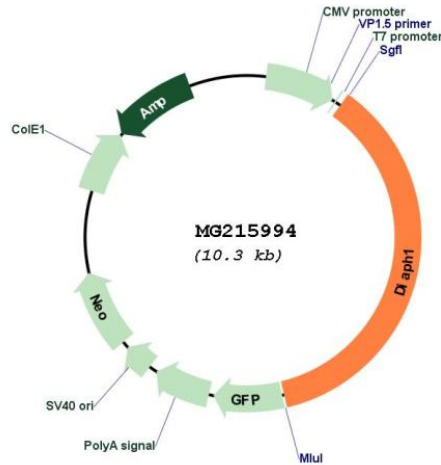
TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



Plasmid Map:


ACCN: NM_007858

ORF Size: 3765 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_007858.2](#), [NP_031884.1](#)

RefSeq Size: 5666 bp

RefSeq ORF: 3768 bp

Locus ID: 13367

UniProt ID: [O08808](#)

Cytogenetics: 18 19.71 cM

Gene Summary:

This gene encodes a member of the formin family of proteins that play important roles in cytoskeletal rearrangement by nucleation of actin filaments. Mice lacking the encoded protein develop age-dependent myeloproliferative defects resembling human myeloproliferative syndrome and myelodysplastic syndromes. Trafficking of T lymphocytes to secondary lymphoid organs and egression of thymocytes from the thymus are impaired in these animals. Lack of the encoded protein in T lymphocytes and thymocytes also reduces chemotaxis. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Sep 2016]