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Product datasheet for MC223829

Diaph3 (NM_019670) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Diaph3 (NM_019670) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Diaph3
Synonyms:	4930417P13Rik; Dia2; Diap3; Drf3; mDia2; mKIAA4117; p134MDia2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

Fully Sequenced ORF:

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>MC223829 representing NM_019670
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGAGAGGCACCGGGCGCGCGCTCTCGGCCGGGACAGCAAGTCGTCGCGGAGGAAGGGCTTGCAGTCCG
CGCCGCCCGCTGGCCCCTACGAGCCCGGGGAGAAGCGACCCAAGTTGCATTTAAATATTAGAACACTGAC
AGATGATATGCTGGACAAATTTGCCAGTATAAGAATTCCAGGGAGCAAGAAAGAGAGACCTCCCCTTCCC
CACCTGAAGACTGTGTCTGGGATCAGTGACAGCTCATCACTGTCCTCAGAGACAATGGAAAACAACCCAA
AGGCGCTGCCAGAGAGTGAAGTCTTGAAGCTTTTTGAGAAGATGATGGAAGATATGAATTTAAATGAAGA
TAAAAAGGCACCATTGCGGGAAAAAGACTTCGGTATCAAAAAAGAAATGGTGATGCAGTACATTAATACT
GCTTCTAAGACAGGAAGTCTTAGAAGTAGCCGACAGATCTCACCTCAGGAATTTCTCCATGAGCTGAAAA
TGGGTTACACAGACGAGAGACTTTTCACGTATCTGGAGTCACTCCGAGTATCATTGACCAGTCATCCTGT
GAGTTGGGTGCAAAGCTTTGGACACGAGGGACTCGGATTATTGCTGGACATTTTGGAAAAACTAATTAAT
GGGCAAATCCAAGAAAAAGTTGTGAAGAAGACTCAGCACAAAGTCATCCAGTGTCTGAGAGCCCTGATGA
ACACACAGTATGGCTTAGAAAGGATTATGAGTGACAAGAGGAGTCTTTCCTTGTTGGCAAAAGCCATGGA
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TGATGTTTACAGCATGTTATGGGACACAGTTAAGGAAACTCGAGCAGAGGGACATTTTCTTTCTATTCTT
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TGTCACAGATTGTATTACATAGAGATGGAACGGACCCTGACTTCACATACAGAAAAAGACTAGATTTGGA
CTTAAGTCAGTTTGTAGATGTTTGCATAGATCAGGCCAAACTAGATGAGTGGGAAGAGAAAGCATCCGAA
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CATTGCAAGAAATTTGAAAAAGAGTGTACTGACCACCAAGAAACCCAGGCTCAATTGCAGAAAAGAGAGG
CAAAGATTAATGAGCTTCAAGCAGAGTTACAAGCTTTTAAATCCCAGTTTGGTGCCTTGCCACCTGGTAC
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CTCAGTGGAGGAGTGCCGCCTCCCCCACCGCCCCCTCCTCCACCACCCCCACCACTCCCAGGAATGCCAA
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AAACCTGCCATTTGGTTTGAAACCAAAGAAAGAATTTAAGCCTGAAATCAGCATGAGAAGATTGAATTGG
TTAAAGATCGGACCAAATGAAATGTCTGAGAACTGCTTCTGGATCAAAGTAAATGAAAATAAGTATGAAA
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CTTTGATGAGAAGAAAGTTATTAAGAAGAGAATGAAGGAACTTAAATTTCTAGATCCTAAAATTGCTCAG
AACCTTTCAATCTTCCTGAGCTCCTTCCGGGTGCCATATGAGAAAATCAGGACGATGATATTGGAAGTGG
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GTTGCTGGAACTTGTGTTGCTAATGGGAAACTACATGAATGCTGGCTCCCGGAATGCTCAAACCTTCGGA
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TCCTGGTAGATGTATGTGAAGAAAAGCATGCTGACATCCTTCACTTTGTGGACGATTTGGCACATTTAGA
CAAAGCTAGCAGAGTCTCTGTAGAAATGCTGGAAAAGAACGTGAAGCAGATGGGAAGGCAGCTTCAACAG
CTTGAGAAGAATTTGGAAACCTTTCCCCCTCCTGAGGACTTGCATGACAAGTTTGTGATAAAGATGTCCA
GCTTCGTTATCAGTGCGAACGAGCAGTATGAAAAACTCTCCACACTACTGGGCAGCATGACACAATTGTA
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AACAACTTCAGAACTTCATTTATGCTAGCATTAAAGGAAAACATCAAAAAACGAGAAGCAGCAGAAAAGG
AGAAACGTGCCAGGATAGCGAAAGAGCGAGCAGAGAAAGAGCGACTTGAACGCCAGCAAGAGAAAAAGCG
CTTACTAGAAATGAAAACTGAGGGAGATGAGACAGGAGTGATGGATAGTCTGCTGGAGGCCTTGCAGTCA
GGGGCTGCCTTCCGCGACAGAAGAAAAAGGACACCAAAGCTGAAAGATATTCGGCAGAGTCTCAGCCCGA
TGTCTCAGAGGCCTGTTCTCAAAGTTTGTAACCATGAAAATCAGAAAATGCAGTTGACAGAAGGGTCACG
TCCACACCACAGTATCAATTGCAACTCCACCAGGACTCCAGTCGCCAAGGAGCTTAATTATAATCTAGAC
ACTCATGCGTCTACAGGGAGGATCAAGGCAGTTGAGAAGGAAGCCTGTAATGCAGAAAGCAACAAAAAA
AGGAAATGGAACTTCTTGGCTCTGTTGCTAAAAGCGAATCAGTTCCTGAAGTTGAAGCCCTGCTGGCAAG
ATTACGAGCTTTATAA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI

ACCN: NM_019670

Insert Size: 3516 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

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).

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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_019670.1, NP_062644.1

RefSeq Size: 3516 bp

RefSeq ORF: 3516 bp

Locus ID: 56419

UniProt ID: Q9Z207

Cytogenetics: 14 E1

Gene Summary: Actin nucleation and elongation factor required for the assembly of F-actin structures, such as actin cables and stress fibers (PubMed:10678165, PubMed:23558171). Required for cytokinesis, stress fiber formation and transcriptional activation of the serum response factor (PubMed:10678165, PubMed:23558171). Binds to GTP-bound form of Rho and to profilin: acts in a Rho-dependent manner to recruit profilin to the membrane, where it promotes actin polymerization (PubMed:10678165). DFR proteins couple Rho and Src tyrosine kinase during signaling and the regulation of actin dynamics (PubMed:10678165). Also acts as an actin nucleation and elongation factor in the nucleus by promoting nuclear actin polymerization inside the nucleus to drive serum-dependent SRF-MRTFA activity (PubMed:23558171). [UniProtKB/Swiss-Prot Function]

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