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Product datasheet for MG218018

Diaph3 (NM_019670) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Diaph3 (NM_019670) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Diaph3
Synonyms:	4930417P13Rik; Dia2; Diap3; Drf3; mDia2; mKIAA4117; p134MDia2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence:

>MG218018 representing NM_019670
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGAGAGGCACCGGGCGCGCGCTCTCGGCCGGGACAGCAAGTCGTCGCGGAGGAAGGGCTTGCAGTCCG
CGCCGCCCGCTGGCCCCTACGAGCCCGGGGAGAAGCGACCCAAGTTGCATTTAAATATTAGAACACTGAC
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CATTGCAAGAAATTTGAAAAAGAGTGTACTGACCACCAAGAAACCCAGGCTCAATTGCAGAAAAGAGAGG
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AGGAAATGGAACTTCTTGGCTCTGTTGCTAAAAGCGAATCAGTTCCTGAAGTTGAAGCCCTGCTGGCAAG
ATTACGAGCTTTA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>MG218018 representing NM_019670
Red=Cloning site Green=Tags(s)

MERHRARALGRDSKSSRRKGLQSAPPAGPYEPGEKRPKLHLNIRTLTDDMLDKFASIRIPGSKKERPPLP
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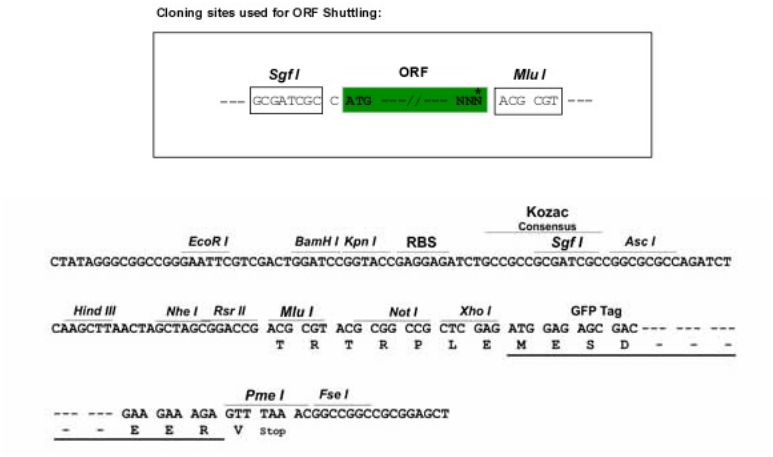
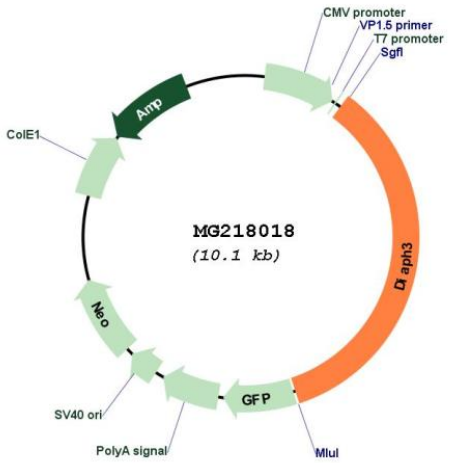
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN:	NM_019670
ORF Size:	3513 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_019670.2
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]