

Product datasheet for **RG201259**

DRG1 (NM_004147) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	DRG1 (NM_004147) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	DRG1
Synonyms:	NEDD3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG201259 representing NM_004147 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGC**C

ATGAGCAGCACCTTAGCTAAGATCGCGGAGATAGAAGCAGAGATGGCTCGGACTCAAAGAACAAGGCCA
 CAGCACACCACTTAGGGCTGCTTAAGGCTCGTCTTGCTAAGCTTCGTCGAGAATCATTACTCCAAAGGG
 TGGTGGTGGTGGAGGTCCAGGAGAAGGTTTGTGTGGCCAAGACAGGTGATGCTCGAATTGGATTTGTT
 GGTTTTCCATCTGTGGGAAGTCAACACTGCTTAGTAACCTGGCAGGGGTATATTCTGAGGTGGCAGCCT
 ATGAATTCACACTCTGACCACTGTGCCTGGTGTCTCATCAGATACAAAGGTGCCAAGATCCAGCTCCTGGA
 TCTCCCAGGTATCATTGAAGGTGCCAAGGATGGGAAAGGTAGAGGTCTCAAGTCATTGCAGTGGCCCGA
 ACCTGTAACCTTGATCTTGATTGTTCTGGATGTCCTGAAACCTTTGGGACATAAGAAGATAATTGAAAATG
 AGCTGGAAGGCTTTGGCATTTCGCTTGAACAGCAAAACCCCAACATTGGCTTTAAGAAGAAGGACAAGGG
 AGGCATTAATCTCACAGCCACTTGCCCCAGAGTGAGCTGGATGCTGAACTGTGAAGAGCATTCTGGCT
 GAATACAAGATTCATAATGCCGATGTGACTCTACGTAGTGATGCTACAGCTGATGACCTCATTGATGTGG
 TGAAGGAAACAGAGTTTATATCCCTGTATCTATGTGTTAAATAAGATTGACCAATCTCCATTGAGGA
 ATTGGATATCATCTATAAGGTGCCTCACTGTGTACCCATCTCTGCCATCACCGCTGGAATTTTGATGAC
 CTATTGGAAAAGATCTGGGACTATCTGAACTAGTGAGAATTTACACCAAAACCAAGGCCAGTTACCAG
 ATTACACATCCCAGTGGTGTCTTCTTACTCCAGGACCACAGTGGAGGATTTCTGCATGAAGATTACAA
 AAATCTTATCAAAGAATTTAAATATGCTCTGGTCTGGGGTCTCTCTGTGAAACACAATCCTCAGAAAGTG
 GGTAAAGACCATACGTTGGAGGATGAGGATGTCATTCAAATTGTGAAGAAG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA


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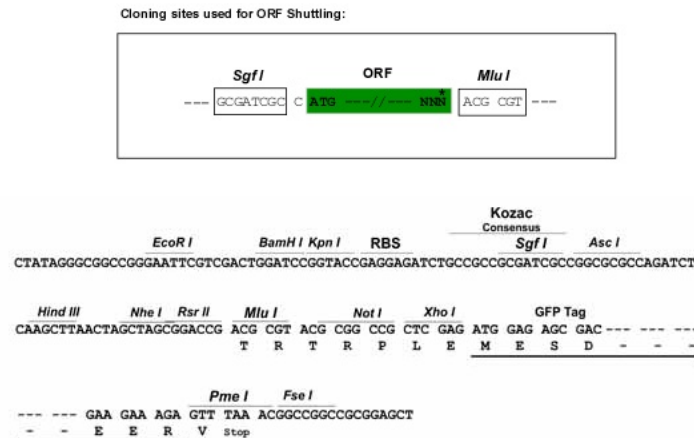
Protein Sequence: >RG201259 representing NM_004147
 Red=Cloning site Green=Tags(s)

MSSTLAKIAEIEAEMARTQKNKATAHHLGLLKARLAKLRRELITPKGGGGGPGEGFDVAKTGDARIGFV
 GFPSVGKSTLLSNLAGVYSEVAAYEFTLTTPGVIRYKGAQIQLDLPGLIEGAKDGKGRGRQVIAVAR
 TCNLIILIVLDVLKPLGHKKIIELEGEFGIRLSKPPNIGFKKDKGGINLTATCPQSEDAETVKSILA
 EYKIHNAADVTLRSDATADDLIDVVEGNRVYIPCIYVLNKIDQISIEELDIYKVPKCVPISAHHRWNFDD
 LLEKIWDYKLVRIYTKPKGQLPDYTPVVLPSYRTTVEDFCMKIHNLIKEFKYALVWGLSVKHNPQKV
 GKDHTLEDEDVIQIVKK

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_004147

ORF Size: 1101 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_004147.4](#)

RefSeq Size: 1467 bp

RefSeq ORF: 1104 bp

Locus ID: 4733

UniProt ID: [Q9Y295](#)

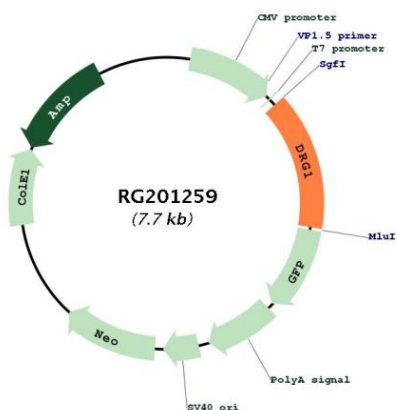
Cytogenetics: 22q12.2

Domains: TGS, GTP1_OBG

Protein Families: Transcription Factors

Gene Summary: Catalyzes the conversion of GTP to GDP through hydrolysis of the gamma-phosphate bond in GTP (PubMed:29915238, PubMed:23711155). Appears to have an intrinsic GTPase activity that is stimulated by ZC3H15/DFRP1 binding likely by increasing the affinity for the potassium ions (PubMed:23711155). When hydroxylated at C-3 of 'Lys-22' by JMJD7, may bind to RNA and play a role in translation (PubMed:19819225, PubMed:29915238). Binds to microtubules and promotes microtubule polymerization and stability that are required for mitotic spindle assembly during prophase to anaphase transition. GTPase activity is not necessary for these microtubule-related functions (PubMed:28855639).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RG201259