

# **Product datasheet for RG232231**

## OriGene Technologies, Inc.

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## MRG15 (MORF4L1) (NM\_001265603) Human Tagged ORF Clone

#### **Product data:**

**Product Type:** Expression Plasmids

Product Name: MRG15 (MORF4L1) (NM\_001265603) Human Tagged ORF Clone

Tag: TurboGFP Symbol: MORF4L1

Synonyms: Eaf3; FWP006; HsT17725; MEAF3; MORFRG15; MRG15; S863-6

Mammalian Cell

Selection:

Neomycin

**Vector:** pCMV6-AC-GFP (PS100010)

**E. coli Selection:** Ampicillin (100 ug/mL)

ORF Nucleotide >RG232231 representing NM\_001265603
Sequence: Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC

GCCGCGATCGCC

ATGAGAGGGCTGCCCCAGGAAAGAAGAAGACATCTGGTCTGCAACAGAAAAATGTTGAAGTGAAAACGAAAA
AGAACAAACAGAAAACACCTGGAAATGGAGATGGTGGCAGTACCAGTGAGACCCCTCAGCCTCCTCGGAA
GAAAAGGGCCCGGGTAGATCCTACTGTTGAAAATGAGGAAACATTCATGAACAGAGTTGAAGTTAAAGTA
AAGATTCCTGAAGAGGCTAAAACCGTGGCTTGTTGATGACTGGGACTTAATTACCAGGCAAAAAACAGCTCT
TTTATCTTCCTGCCAAGAAGAATGTGGATTCCATTCTTGAGGATTATGCAAATTACAAGAAATCTCGTGG
AAACACAGATAATAAGGAGTATGCGGTTAATGAAGTTGTGGCAGGGATAAAAGAATACTTCAACGTAATG
TTGGGTACCCAGCTACTCTATAAATTTGAGAGACCACAGTATGCTGAAATTCTTGCAGATCATCCCGATG
CACCCATGTCCCAGGTGTATGGAGCGCCACATCTCCTGAGATTATTTTGTACGAATTTCCTAAAGTACCTG
GCAAAGAATTCTGCAACTTTGTTCAGTGCCAGCGATTATGAAGTGCCCCTCCTGAGTACCATCGGAAAG
CTGTG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA





Protein Sequence: >RG232231 representing NM\_001265603

Red=Cloning site Green=Tags(s)

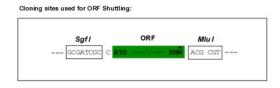
MRGAAPGKKTSGLQQKNVEVKTKKNKQKTPGNGDGGSTSETPQPPRKKRARVDPTVENEETFMNRVEVKV KIPEELKPWLVDDWDLITRQKQLFYLPAKKNVDSILEDYANYKKSRGNTDNKEYAVNEVVAGIKEYFNVM LGTQLLYKFERPQYAEILADHPDAPMSQVYGAPHLLRLFVRIGAMLAYTPLDEKSLALLLNYLHDFLKYL AKNSATLFSASDYEVAPPEYHRKAV

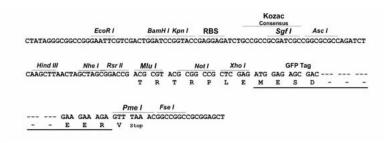
TRTRPLE - GFP Tag - V

**Restriction Sites:** 

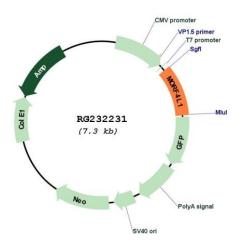
Sgfl-Mlul

**Cloning Scheme:** 





## Plasmid Map:



**ACCN:** NM\_001265603

ORF Size: 705 bp

#### MRG15 (MORF4L1) (NM\_001265603) Human Tagged ORF Clone - RG232231

**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: <u>NM 001265603.1</u>, <u>NP 001252532.1</u>

15q25.1

 RefSeq Size:
 1779 bp

 RefSeq ORF:
 708 bp

 Locus ID:
 10933

 UniProt ID:
 Q9UBU8

Cytogenetics:

**Protein Families:** Transcription Factors

**Gene Summary:** Component of the NuA4 histone acetyltransferase (HAT) complex which is involved in

transcriptional activation of select genes principally by acetylation of nucleosomal histones H4 and H2A. This modification may both alter nucleosome - DNA interactions and promote

interaction of the modified histones with other proteins which positively regulate

transcription. This complex may be required for the activation of transcriptional programs associated with oncogene and proto-oncogene mediated growth induction, tumor suppressor mediated growth arrest and replicative senescence, apoptosis, and DNA repair. The NuA4 complex ATPase and helicase activities seem to be, at least in part, contributed by the association of RUVBL1 and RUVBL2 with EP400. NuA4 may also play a direct role in DNA repair when directly recruited to sites of DNA damage. Also component of the mSin3A complex which acts to repress transcription by deacetylation of nucleosomal histones. Required for homologous recombination repair (HRR) and resistance to mitomycin C (MMC). Involved in the localization of PALB2, BRCA2 and RAD51, but not BRCA1, to DNA-damage foci.

[UniProtKB/Swiss-Prot Function]