OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for MG219681

Rtn3 (NM_001003933) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Rtn3 (NM_001003933) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Rtn3
Synonyms:	RTN3-A1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence:

>MG219681 representing NM_001003933
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCGGAGTCGTCAGCGGCCACTCAGTCCCCGTCAGTCTCCTCGTCGTCCTCCGGGGCCGAGCCGTCAG
CTCTCGGCGGCGGCGGCGGGAGCCCTGGAGCCTGCCCCGCCCTGGGGGCGAAGAGCTGCGGCTCCTCGTG
TGCGGCGGGATTGAGCTCTCTTTGCTCTGATGAGCCACCTTCAAAAAGTATGACTTCCTCCTTTCTTTCA
TCTTCTGAAATACATAACCCTGACCCTACAACACCGCTTGGAGAAAAGAGTGAAACATTAGGTAGCCAGT
TTGTTCTAGCTAAAGGAAAAGACCCCTTGGTTCTTCTAGATAAGAAAAAACTGGACTCACCTCAGGGGAC
CAACAAGGACAGAGTAGACGCTCCGGTTTCTCTTGCAACTGGCATTCCTTGCAGCCACCCTTCTATTCCA
GACAGTTTCCCAGAGCAACCTGCTTTTCTGTCAAAAGAAATTGGTCCAGCAGAAGAGTGGGTAGTTAAAG
ACCAAGAACCCAAGAACCCAAACAAGGTTCCAGATGGGGAGGACAGAAGTGCACTGGATTTTGGGCAGTC
TAAGGCAGAACACATTTGTACATATTCCTTGTCCCCATCTGAACTTCCAGTAGCCAGTGTAGAAAAAGAT
TCTCCTGAGTCACCGTTTGAAGTAATTATTGACAAAGCAACATTTGACAGAGAATTTAAAGATTTGTATA
AGGAAAACCCAAATGATTTGGGTGGCTGGGCAGCTCATGGCGATAGAGAATCCCCCGCAGACTTGTTGGA
AATGAATGACAAACTCTTTCCACTGAGAAATAAAGAGGCAGGGCGTTACCCATCCTCTGTACTGCTCGGT
AGACAGTTCTCACACACTACAGCAGCACTGGAAGAGGTGTCTAGATGTGTGAATGATATGCATAACTTTA
CTAATGAAATACTGACTTGGGACTTAGATCCCCAAGCAAAACAACAGGCCAATAAAACATCTTGCACCAC
AGAAAGTACAGGACTAGACAGGAGTGAACTTCGCTCAGAAATTCCAGTTATAAATCTTAAAACAAACCCT
CAACAGAAAATGCCTGTATGTTCTTTTAATGGGAGCACTCCCATTACCAAATCCACAGGTGACTGGACAG
AAGCATTTACAGAAGGAAAACCTGTAAGAGACTACCTCAGTTCCACAAAAGAAGCTGGTGGCAACGGTGT
GCCAGGCAGTTCTCAGCTTCATTCTGAGCTGCCTGGCTCTATGCCTGAGAAATGGGTCTCAGGCTCTGGA
GCAGCCACAGTGGAAGTAACTTTACCTAACCTGAGGGGTGCCTGGCCTAACTCTGTGATGGGGGAAGTCA
CAGAGGTTGATAGTTCTGGGGAATCTGATGACACAGTAATAGAGGACATCACAGAAAAACCTGACTCCCT
TCCAAGTGCTGCTGCAAAAACAAGTGAAAGGGAAATCAAAGAGACTCCCAGTCGTGAAACTGTGAGGAGT
GAAATGTGTGAAAACTCTGAGCAGCCGCAGGCCCAGCCAGAAACTCCTACTCAGAAGAGTCTGGAAGGTG
AGGTGGCTTCACAAGTACCTAATACCCTGAATGAAGTCACACCTGAAAAGCTTGATATGACTAACAACCC
CAAAGTTTGCTCAGCAGCACCTCCAAGTGTTCTTAATGAGACAGGATTCTCACTAACTGTGCCAGCTTCT
GCCAAGTTGGAATCTTTGCTTGGAAAATATGTTGAAGATACAGATGGTTCCTCCCCAGAGGACTTGATGG
CTGTCCTCACAGGAGCCGAGGAGAAGGGGATAGTGGATAAAGAGGAAGGTGATGTTTTGGAAGCAGTGTT
AGAGAAGATAGCAGACTTTAAAAACACTTTGCCTGTGGAACTCTTGCATGAAAGTGAGCTAAGTGGTTCT
GAAACCAAAAATATTAAAAGCAAATACAGTGAAGACAGCAGAGAAACAACTGGAGGTGCCCCTACGATGT
CTCCCGACTTAGAGCAGGAGCAGCTCACCATCAGAGCCATTAAAGAATTAGGAGAAAGGCAAGCTGAGAA
GGTGCAGGATGAAGGAATATCTTCTGGAGGAAAACTCAAGCAAACCTTTGCTCCACAGTCTGGGCCACAG
AGTTCATCTGACATCCTAGAACACACAGATGTCAAAACTGGATCTGATCTTGGAATTCCCAAAAATCCTA
CTATCATCAAAAACACTAGAATAGATTCTATTTCCAGCCTTACCAAGACTGAAATGGTTAACAAGAATGT
TCTAGCAAGACTTCTCAGTGATTTCCCAGTGCACGATCTGATTTTCTGGCGAGATGTGAAGAAGACTGGG
TTTGTCTTTGGCACCACACTGATCATGCTGCTCTCTCTGGCAGCCTTCAGTGTTATCAGTGTGGTCTCTT
ACCTCATCCTGGCTCTTCTCTCTGTCACCATCAGCTTCAGAGTCTATAAGTCTGTCATTCAAGCTGTGCA
GAAGTCAGAAGAAGGACATCCATTCAAGGCCTACTTGGATGTGGACATTACCCTGTCTTCAGAAGCTTTC
CACAACTACATGAATGCTGCGATGGTGCATGTCAACAAGGCCCTCAAACTCATTATTCGTCTCTTTCTGG
TAGAAGACTTGGTTGACTCCTTGAAGCTGGCTGTCTTCATGTGGCTGATGACCTATGTTGGTGCTGTTTT
TAATGGAATTACCCTTCTGATTCTCGCCGAGCTGCTTGTCTTCAGCGTCCCAATTGTCTATGAGAAGTAT
AAGACACAGATTGACCACTATGTTGGGATTGCCCGGGATCAGACCAAGTCAATTGTTGAAAAGATCCAAG
CAAAGCTTCCTGGAATCGCCAAAAAAAAGGCAGAA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

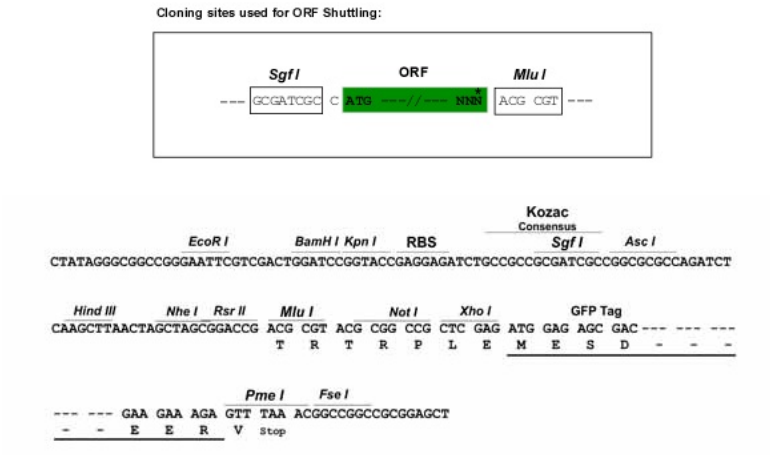
>MG219681 representing NM_001003933
Red=Cloning site Green=Tags(s)

MAESSAATQSPSVSSSSSGAEPSALGGGGGSPGACPALGAKSCGSSCAAGLSSLCSDEPPSKSMTSSFLS
SSEIHNPDPTTPLGEKSETLGSQFVLAKGKDPLVLLDKKKLDSPQGTNKDRVDAPVSLATGIPCSHPSIP
DSFPEQPAFLSKEIGPAEEWVVKDQEPKNPNKVPDGEDRSALDFGQSKAEHICTYSLSPSELPVASVEKD
SPESPFEVIIDKATFDREFKDLYKENPNDLGGWAAHGDRESPADLLEMNDKLFPLRNKEAGRYPSSVLLG
RQFSHTTAALEEVSRCVNDMHNFTNEILTWDLDPQAKQQANKTSCTTESTGLDRSELRSEIPVINLKTNP
QQKMPVCSFNGSTPITKSTGDWTEAFTEGKPVRDYLSSTKEAGGNGVPGSSQLHSELPGSMPEKWVSGSG
AATVEVTLPNLRGAWPNSVMGEVTEVDSSGESDDTVIEDITEKPDSLPSAAAKTSEREIKETPSRETVRS
EMCENSEQPQAQPETPTQKSLEGEVASQVPNTLNEVTPEKLDMTNNPKVCSAAPPSVLNETGFSLTVPAS
AKLESLLGKYVEDTDGSSPEDLMAVLTGAEEKGIVDKEEGDVLEAVLEKIADFKNTLPVELLHESELSGS
ETKNIKSKYSEDSRETTGGAPTMSPDLEQEQLTIRAIKELGERQAEKVQDEGISSGGKLKQTFAPQSGPQ
SSSDILEHTDVKTGSDLGIPKNPTIIKNTRIDSISSLTKTEMVNKNVLARLLSDFPVHDLIFWRDVKKTG
FVFGTTLIMLLSLAAFSVISVVSYLILALLSVTISFRVYKSVIQAVQKSEEGHPFKAYLDVDITLSSEAF
HNYMNAAMVHVNKALKLIIRLFLVEDLVDSLKLAVFMWLMTYVGAVFNGITLLILAELLVFSVPIVYEKY
KTQIDHYVGIARDQTKSIVEKIQAKLPGIAKKKAE

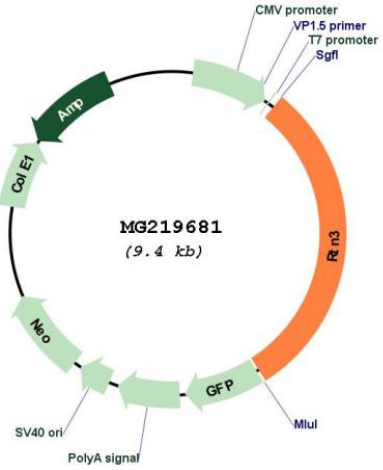
TRTRPLE – GFP Tag – V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN:	NM_001003933
ORF Size:	2835 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_001003933.2, NP_001003933.1
RefSeq Size:	4973 bp
RefSeq ORF:	2838 bp
Locus ID:	20168
UniProt ID:	Q9ES97
Cytogenetics:	19 A

Gene Summary: May be involved in membrane trafficking in the early secretory pathway. Inhibits BACE1 activity and amyloid precursor protein processing. May induce caspase-8 cascade and apoptosis. May favor BCL2 translocation to the mitochondria upon endoplasmic reticulum stress (By similarity). Induces the formation of endoplasmic reticulum tubules (PubMed:24262037).[UniProtKB/Swiss-Prot Function]