

Product datasheet for **MG217185**

Rangap1 (NM_001146174) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Rangap1 (NM_001146174) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Rangap1
Synonyms:	C79654; Fug1; mKIAA1835
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG217185 representing NM_001146174
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGCCTCTGAAGACATTGCCAACTGGCAGAGACCCCTGGCTAAAACCTCAGGTAGCCGGAGGGCAGCTGA
 GTTTTAAGGGCAAGGGTCTCAAACCTAAACTGCGAGAAGATGCTAAAGATGTGATTAAGGAGATTGAAGA
 GTTTGACGGCCTCGAAGCTCTACGATTGGAGGGCAACACGGTGGGCGTGAAGCGCCAGAGTCATCGCC
 AAGGCCTTAGAGAAGAAGTCTGAGTTGAAGCGATGCCACTGGAGTGACATGTTCCACAGGAAGGCTTCGGT
 CTGAGATCCCACCAGCTCTGATCTCACTAGGGGAGGGACTCATCACTGCAGGAGCACAGCTGGTGGAACT
 GGACCTCAGTGACAACGCATTTGGACCCGATGGAGTGGCAGGCTTCGAGGCCCTCCTCAAGAGCCCAGCC
 TGCTTCACCTACAGGAACCTAAGCTTAACAACCTGTGGCATGGGCATCGGGGTGGCAAGATTCTGGCAG
 CAGCTCTGACTGAGTGTACCCGCAAGTCCAGTGCCCAAGGCAAGCCCCTGGCCCTGAAGGTGTTTGTGGC
 TGGCAGAAATCGCCTGGAGAATGACGGAGCCACTGCCTGGCAGAAAGCTTTGGGATCATCGGGACTCTG
 GAAGAGGTGCATATGCCACAGAACGGAATTAACCATCCTGGTGTACAGCCCTGGCCAGGCCTTTGCCA
 TCAACCCCTGTTGCGAGTCATCAACCTAAATGACAACACCTTCACTGAGAAGGGTGGGGTGGCCATGGC
 TGAGACTCTGAAGACTCTGCGACAAGTGGAAAGTATCAATTTGGAGACTGCCTGGTGGCCTCTAAGGGT
 GCCGTTGCCATCGCAGATGCTGTCCGTGGTGGCCTGCCAAGCTAAAGGAGCTGAATCTGTGCTTCTGCG
 AAATCAAGAGAGATGCTGCCCTGGTGTGTGCTGAGGCTGTGGCCGACAAGGCTGAGCTGGAGAAGCTGGA
 CCTCAATGGCAATGCCCTCGGAGAAGAGGGCTGTGAGCAGCTTCAGGAGGTGATGGACAGCTTCAATATG
 GCCAAGGTGCTGGCATCCCTCAGTGATGATGAGGGAGAGGATGAAGATGAGGAGGAAGAAGGAGAAGAGG
 ATGATGAGGAGGAGGAAGATGAAGAGGATGAGGAAGATGATGATGAGGAGGAGGAGGAGGAGGAAGA
 GGAAGAGCCTCCGACAGAGAGGGTACGGGAGGAGCCGGCTACACCTCGAGGAAGATCCTGGACCCTAAC
 AGTGGGGAGCCAGCTCCCGTGTCTCCTCCCGACTCCCACAGACCTCTCCACCTTCTGTCTATCCCT
 CCCAGAGAAGCTGCTGCGTCTGGTCCCAAGTCTCGGTGCTGATAGTCCAGCAGACTGATACCTCCGA
 CCCAGAGAAGGTTGTTTCAGCCTTCTGAAGGTGGCATCTGTGTTGAGGATGACGCCTCAGTAAAGACC
 GCAGTCTGGATGCCATCGATGCCCTCATGAAGAAGGCCCTCAGCTGCTCCTTTCAATCCAACCT
 TCCTTACCAGGCTGCTCATCCACATGGTCTGCTCAAGAGTGAAGACAAGATCAAGGCCATACCCAGCCT
 GCATGGCCCCCTGATGGTGTGAACCACGTGGTGGCAGGACTATTTCCCAAGGCCCTTGACCCCTG
 CTCTTGGCATTGTGACAAAGCCCAATGGCGCGCTGGAACCTGCTCCTTTGCCGCCACAATCTGCTGC
 AGACGCTATACAACATC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>MG217185 representing NM_001146174
 Red=Cloning site Green=Tags(s)

MASEDIAKLAETLAKTQVAGGQLSFKGKGLKLNATAEDAKDVIKEIEEFDGLEALRLENGTVGVEARVIA
 KALEKKSELKRCHWSDMFTGRLRSEIPPALISLGEGLITAGAQLVELDLSDNAFGPDGVRGFEALLKSPA
 CFTLQELKLNCCGMGIGGKILAAALTECHRKSSAQGKPLALKVAVAGRNRLENDGATALAEAFGIIGTL
 EEVHMPQNGINHPGVTALAQAFAINPLLRVINLNDNTFTEKGGVAMAETLKLTRQVEVINFGDCLVRSKG
 AVAIADAVRGGPKLKLNLNLSFCEIKRDAALVVAEAVADKAELEKLDLNGNALGEEGCEQLQEVMSDFNM
 AKVLASLSDDEGEDEDEEEDEEEDDEEEDDEEEDDEEEDDEEEDDEEEDDEEEDDEEEDDEEEDDEE
 SGEPAPVLSPTPTDLSTFLSFPSPKLLRLGPKVSVLIVQQTDTSDPEKVVSFLKVASVFRDDASVKT
 AVLDAIDALMKKAFSCSSFNSNTFLTRLLIHMGLLKSEDKIKAIPSLHGPLMVLNHVVRQDYFPKALAPL
 LLAFVTKPNGALETCSFARHNLQTLNYI

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_001146174

ORF Size: 1767 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_001146174.1](#), [NP_001139646.1](#)

RefSeq Size: 2954 bp

RefSeq ORF: 1770 bp

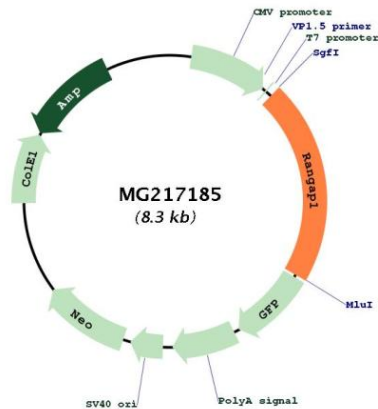
Locus ID: 19387

UniProt ID: [P46061](#)

Cytogenetics: 15 38.21 cM

Gene Summary:

GTPase activator for RAN. Converts cytoplasmic GTP-bound RAN to GDP-bound RAN, which is essential for RAN-mediated nuclear import and export (PubMed:18305100). Mediates dissociation of cargo from nuclear export complexes containing XPO1, RAN and RANBP2 after nuclear export (By similarity). Required for postimplantation embryonic development (PubMed:8314081).[UniProtKB/Swiss-Prot Function]

Product images:

Circular map for MG217185