

## Product datasheet for **MR217185**

### Rangap1 (NM\_001146174) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Rangap1 (NM_001146174) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Rangap1
Synonyms:	C79654; Fug1; mKIAA1835
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>MR217185 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGCCTCTGAAGACATTGCCAACTGGCAGAGACCTGGCTAAACTCAGGTAGCCGGAGGGCAGCTGA  
 GTTTTAAGGGCAAGGGTCTCAAACCTAAACTGCGAGAAGATGCTAAAGATGTGATTAAGGAGATTGAAGA  
 GTTTGACGGCCTCGAAGCTCTACGATTGGAGGGCAACACGGTGGGCGTGAAGCGCCAGAGTCATCGCC  
 AAGGCCTTAGAGAAGAAGTCTGAGCTGAAGCGATGCCACTGGAGTGACATGTTACAGGAAGGCTTCGGT  
 CTGAGATCCCACCAGCTCTGATCTCACTAGGGGAGGGACTCATCACTGCAGGAGCACAGCTGGTGGAACT  
 GGACCTCAGTGACAACGCATTTGGACCCGATGGAGTGGGAGGCTTCGAGGCCCTCCTCAAGAGCCCAGCC  
 TGCTTCACCTACAGGAAGCTCAAGCTTAACAACGTGGCATGGGCATCGGGGTGGCAAGATTCTGGCAG  
 CAGCTCTGACTGAGTGTACCCGCAAGTCCAGTGCCCAAGGCAAGCCCTGGCCCTGAAGGTGTTTGTGGC  
 TGGCAGAAATCGCCTGGAGAATGACGGAGCCACTGCCTGGCAGAAAGCTTTGGGATCATCGGGACTCTG  
 GAAGAGGTGCATATGCCACAGAACGGAATTAACCATCCTGGTGTACAGCCCTGGCCAGGCCTTTGCCA  
 TCAACCCCTGTTGCGAGTCATCAACCTAAATGACAACACCTTCACTGAGAAGGGTGGGGTGGCCATGGC  
 TGAGACTCTGAAGACTCTGCGACAAGTGGAAAGTATCAATTTGGAGACTGCCTGGTGGCTCTAAGGGT  
 GCCGTTGCCATCGCAGATGCTGTCCGTGGTGGCCTGCCAAGCTAAAGGAGCTGAATCTGTGCTTCTGCG  
 AAATCAAGAGAGATGCTGCCCTGGTGTGTGCTGAGGCTGTGGCCGACAAGGCTGAGCTGGAGAAGCTGGA  
 CCTCAATGGCAATGCCCTCGGAGAAGAGGGCTGTGAGCAGCTTCAGGAGGTGATGGACAGCTTCAATG  
 GCCAAGGTGCTGGCATCCCTCAGTGATGATGAGGGAGAGGATGAAGATGAGGAGGAAGAAGGAGAAGAG  
 ATGATGAGGAGGAGGAAGATGAAGAGGATGAGGAAGATGATGATGAGGAGGAGGAGGAGGAGGAAGA  
 GGAAGAGCCTCCGACAGAGAGGGTCAGGGGAGGAGCCGGCTACACCTCGAGGAAGATCCTGGACCCTAAC  
 AGTGGGGAGCCAGCTCCCGTGTCTCCTCCCGACTCCCACAGACCTCTCCACCTTCTGTCTATCCCT  
 CCCAGAGAAGCTGCTGCGTCTGGTCCCAAGTCTCGGTGCTGATAGTCCAGCAGACTGATACCTCCGA  
 CCCAGAGAAGGTTGTTTCAGCCTTCTGAAGGTGGCATCTGTGTTCAAGGATGACGCCTCAGTAAAGACC  
 GCAGTCTGGATGCCATCGATGCCCTCATGAAGAAGGCCCTCAGCTGCTCCTTTCAATCCAACCT  
 TCCTTACCAGGCTGCTCATCCACATGGTCTGCTCAAGAGTGAAGACAAGATCAAGGCCATACCCAGCCT  
 GCATGGCCCCCTGATGGTGTGAACCACGTGGTGAAGCAGGACTATTTCCCAAGGCCCTGCACCCCTG  
 CTCTTGGCATTGTGACAAAGCCCAATGGCGCGCTGGAACCTGCTCCTTTGCCGCCACAATCTGCTGC  
 AGACGCTATACAACATC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>MR217185 protein sequence  
 Red=Cloning site Green=Tags(s)

MASEDIAKLAETLAKTQVAGGQLSFKGKGLKLNLAEDAKDVIKEIEEFDGLEALRLENGTVGVEAARVIA  
 KALEKKSELKRCHWSDMFTGRLRSEIPPALISLGEGLITAGAQLVELDLSDNAFGPDGVRGFEALLKSPA  
 CFTLQELKLNCGMGIGGGKILAAALTECHRKSSAQGKPLALKVVFVAGRNRLENDGATALAEAFGIIGTL  
 EEVHMPQNGINHPPGVTALAQAFAINPLLRVINLNDNTFTEKGGVAMAETLKTLRQVEVINFGDCLVRSG  
 AVAIADAVRGGPKLKLNL SFCEIKRDAALVVAEAVADKAELEKLDLNGNALGEEGCEQLQEVMSDFNM  
 AKVLASLSDDEGEDEDEEEDEEEDDEEEDDEEEDDEEEDDEEEDDEEEDDEEEDDEEEDDEEEDDEEED  
 SGEPAPVLSPTPTDLSTFLSFPSPKLLRLGPKVSVLIVQQTDTSDPEKVVSAFLKVASVFRDDASVKT  
 AVLDAIDALMKKAFSCSSFNSTFLTRLLIHMGLLKSEDKIKAIPLSHGPLMVLNHVVRQDYFPKALAPL  
 LLAFVTKPNGALETCSFARHLLQTLNYI

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**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

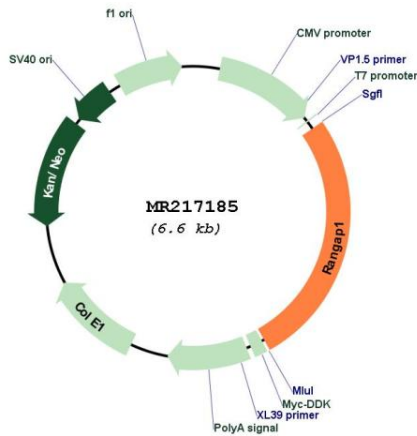
**UniProt ID:** [P46061](#)

**Cytogenetics:** 15 38.21 cM

**MW:** 63.5 kDa

**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 MR217185