

Product datasheet for **RG234488**

MAK (NM_001242385) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MAK (NM_001242385) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	MAK
Synonyms:	RP62
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG234488 representing NM_001242385
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGAACCGATACACAACCATGAGACAGTTGGGGACGGCACGTATGGGAGTGTGCTTATGGCAAGAGTA
 ATGAATCCGGGGAGCTGGTGGCCATCAAAAGGATGAAGAGAAAGTTCTATTCTTGGGATGAATGCATGAA
 CTTGAGAGAAGTTAAGTCTCTGAAGAACTTAATCATGCCAATGTTATTAATTAAGAAAGTTATCAGA
 GAAATGACCATCTTTATTTTATATTTGAATATATGAAAGAAAACCTCTATCAATTAATGAAAGACAGAA
 ACAAGTTGTTCCCTGAATCAGTCATCAGAAATATTATGTATCAAAATTGCAAGGCTGGCTTTTATCCA
 TAAACATGGCTTTTTTTCATAGGGACATGAAACCAGAAAACCTGCTTTGTATGGGTCCAGAGCTTGTGAAA
 ATTGCTGATTTTGGACTTGAAGAGAATTAAGGTCACAGCCACCATACACTGATTATGTATCTACCAGAT
 GGTATCGTGCCCTGAAGTTTACTGAGATCTTCAGTTTATAGTTCTCCATTGATGTGTGGCTGTTGG
 AAGTATCATGGCTGAACCTATATGTTAAGGCCACTTTTCCAGGGACAAGTGAGGTCGATGAAATCTTT
 AAAATTTGCCAAGTTTAGGGACTCCCAAAAAAGTGACTGGCCAGAAGGATACAGCTGGCATCCCTCTA
 TGAATTCGGTTTTCCCAAGTGTGTTCTATAAACTTAAAACTCTTATTCCTAATGCCAGTAATGAAGC
 TATTCAGCTCATGACCGAAATGTTGAATTGGGATCCAAAGAAACGACCGACAGCAAGCCAGGCATTGAAA
 CACCCATATTTCAAGTTGGTCAGGATATTAGGCCCTTCGTCAAATCATCTGGAATCAAAAACAGTCTTTAA
 ATAAGCAGCTGCAACCATTAGAATCAAAGCCATCTTTAGTTGAGGTAGAGCCTAAGCCTCTGCCGGATAT
 AATCGATCAGGTTGTTGGACAACCCAGCCAAAACTAGCCAGCAGCCACTGCAGCCATTACAGCCGCCA
 CAGAACCTGAGCGTCCAGCAACCTCAAAGCAACAGAGTCAGGAGAAAACCGCCACAAACGCTATTCGCGA
 GCATCGTCAAAAACATGCCAACTAAGCCAAATGGCACACTGAGTCATAAAAAGTGGTAGGAGGCTTGGGG
 TCAGACTATCTCAAGTCTGGAGATAGCTGGGAAGAGTTGGAGGACTATGATTTCCGGAGCCTCCCATTTCC
 AAGAAGCCAAGCATGGGTGTTTTTAAAGAAAAAGGAAAAAGATTCTCCATTTCCGCTTCCAGAGCCAG
 TACCCTCAGGCTCCAACCACTCGACAGGGGAAAAACAAGAGCTTACCTGCTGTTACTTCCCTAAAACTGTA
 TTCCGAATTGTCAACTGCTCCAACCTCTAACAGTACTACTTGAACAATCAAGATATCTCCAGGTGTG
 AATCCCAAGAAGGTGCTTGTAGCCAGTGGAAAGGAAATAAACCCACACTTGGAGCAACCAGTTAT
 TCCCAAGTCACTGGGACCCGTTGGGGCAGAATTGCTTTCAAAGGAGCAATGCAGAATATACCTGGAA
 CACAAAACTGGTCGGGGCAGTTTTCAGGACGTAATAATCCTACAGCAAAAAACCTAAATATTGTG
 AACCGTGCACAGCCATTCCCTCAGTGCATGGGAGGACAGACTGGGTGGCCAAGTATGGAGGCCACCGG

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG234488 representing NM_001242385
 Red=Cloning site Green=Tags(s)

MNRYTTMRQLGDGTYSVLMGKSNESGELVAIKRMKRKFYSWDECMNLREVKSLKLNHANVIKLKEVIR
 ENDHLYFIFEYMKENLYQLMKDRNKLFPESVIRNIMYQILQGLAFIHKHGFHFRDMKPENLLCMGPPELVK
 IADDFGLARELRSQPPYTDYVSTRWYRAPEVLLRSSVYSSPIDVWAVGSIMAEYMLRPLFPGTSEVDEIF
 KICQVLGTPKSDWPEGYQLASSMNFQPCVPINLKTLPNASNEAIQLMTEMLNWDPKRPTASQALK
 HPYFQVQVQLGPSSNHLESKQSLNKQLPLESKPSLVEVEPKPLPDIIDQVVGQPQPKTSQQPLQPIQPP
 QNLSVQQPPKQSQEKPPQTLFPSIVKNMPTKPNGTLSHKSGRRRWGQTIKSGDSWEELDYDFGASHS
 KKPMSMGVFKERKKDSPFRLPEPVPSGNSHSTGENKSLPAVTSKSDSELSTAPTQYKQSRYPGV
 NPKKVSLIASGKEINPHTWSNQLFPKSLGPVGAELAFKRSNAEYTWNTKTGRGQFSGRTYNPTAKNLNIV
 NRAQPIPSVHGRDHWAKYGGHR

TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_001242385

ORF Size: 1749 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_001242385.1](#), [NP_001229314.1](#)

RefSeq Size: 3800 bp

RefSeq ORF: 1752 bp

Locus ID: 4117

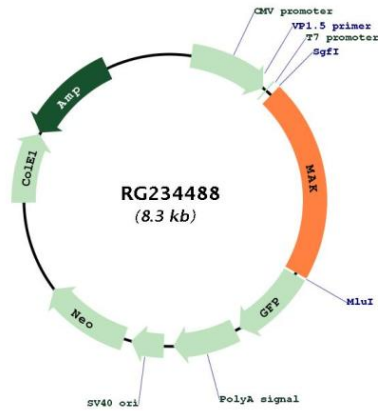
UniProt ID: [P20794](#)

Cytogenetics: 6p24.2

Protein Families: Druggable Genome, Protein Kinase

Gene Summary: The product of this gene is a serine/threonine protein kinase related to kinases involved in cell cycle regulation. Studies of the mouse and rat homologs have localized the kinase to the chromosomes during meiosis in spermatogenesis, specifically to the synaptonemal complex that exists while homologous chromosomes are paired. Mutations in this gene have been associated with ciliary defects resulting in retinitis pigmentosa 62. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jan 2016]

Product images:



Circular map for RG234488