

## Product datasheet for **RG200254**

### **MCAK (KIF2C) (NM\_006845) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	MCAK (KIF2C) (NM_006845) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	MCAK
Synonyms:	CT139; KNSL6; MCAK
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG200254 representing NM\_006845  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCCATGGACTCGTCGCTTCAGGCCCGCTGTTCCCGGTCTCGTATCAAGATCCAACGCAGTAATG  
 GTTTAATTCACAGTGCCAATGTAAGGACTGTGAACCTGGAGAAATCCTGTGTTTCAGTGGAATGGGCAGA  
 AGGAGGTGCCACAAAGGGCAAAGAGATTGATTTTGATGATGTGGCTGCAATAAACCCAGAACTCTTACAG  
 CTTCTTCCCTTACATCCGAAGGACAATCTGCCCTTGCAGGAAAATGTAACAATCCAGAAACAAAAACGGA  
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 CTCAGAGCTTCGCATCACGGCTCAGGAGAATGACATGGAGGTGGAGCTGCCTGCAGCTGCAAACTCCCGC  
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 TGGTCAGCGAGGAGATGGAAGAGCAAGTCCATTCCATCCGAGGCAGCTCTTCTGCAAACCCTGTGAACTC  
 AGTTTCGGAGGAAATCATGTCTTGTGAAGGAAGTGAAAAAATGAAGAACAAGCGAGAAGAGAAGAAGGCC  
 CAGAACTCTGAAATGAGAATGAAGAGAGCTCAGGAGTATGACAGTAGTTTTCCAAACTGGGAATTTGCC  
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 CAGAATATGTGTCTGTGTAGGAAACGCCCACTGAATAAGCAAGAATTGGCCAAGAAAGAAATTTGATGTG  
 ATTTCCATTCTAGCAAGTGTCTCCTCTTGGTACATGAACCCAAGTTGAAAGTGGACTTAACAAAGTATC  
 TGGAGAACCAAGCATTCTGCTTTGACTTTGCATTTGATGAAACAGCTTCGAATGAAGTTGTCTACAGTT  
 CACAGCAAGGCCACTGGTACAGACAATCTTTGAAGGTGAAAAAGCAACTGTTTTGCATATGGCCAGACA  
 GGAAGTGGCAAGACACATACTATGGGCGGAGACCTCTCTGGGAAAGCCAGAATGCATCCAAAGGGATCT  
 ATGCCATGGCCTCCCGGACGTCTTCTCCTGAAGAATCAACCTGCTACCGGAAGTTGGCCTGGAAGT  
 CTATGTGACATTCTTCGAGATCTACAATGGGAAGCTGTTTGACCTGCTCAACAAGAAGGCCAAGCTGCGC  
 GTGCTGGAGGACGGCAAGCAACAGGTGCAAGTGGTGGGGCTGCAGGAGCATCTGGTTAACTGCTGATG  
 ATGTCATCAAGATGATCGACATGGGCGAGCCTGCAGAACCTCTGGGCGAGACATTTGCCAACTCCAATTC  
 CTCCCGTCCCACGCGTCTTCCAAATTTCTTCGAGCTAAAGGGAGAATGCATGGCAAGTTCTCTTTG  
 GTAGATCTGGCAGGGAATGAGCGAGGCGCGGACACTTCCAGTGTGACCGGCGAGCCCGCATGGAGGGCG  
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 AGATCATACAGCAAGGACCAGACTGGCTTGAGCTCTCTGAGATGACCGAGCAGCCAGACTATGACCTGGA  
 GACCTTTGTGAACAAAGCGGAATCTGCTCTGGCCAGCAAGCCAAGCATTCTCAGCCCTGCCAGATGTC  
 ATCAAGGCCTTGCCTGGCCATGCAGCTGGAAGAGCAGGCTAGCAGACAATAAGCAGCAAGAAACGGC  
 CCCAG

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

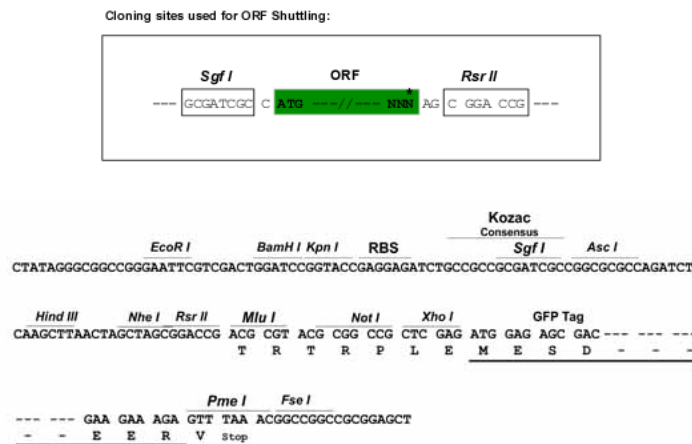
**Protein Sequence:** >RG200254 representing NM\_006845  
 Red=Cloning site Green=Tags(s)

MAMDSSLQARLFPGLAIKIQRSNGLIHSANVRTVNLEKSCVSVWEAEGGATKGKEIDFDDVAAINPELLQ  
 LLPLHPKDNPLQENVTIQKQRRSVNSKIPAPKESLSRSTRMSTVSELRITAQENDMEVELPAAANSR  
 KQFSVPPAPTRPSCPVAEIPLRMVSEEMEEQVHSIRGSSANPNVSVRRKSCLVKEVEKMKNKREEKKA  
 QNSEMRMKRAQEQYDSSFNPWEFARMIKEFRATLECHPLTMTDPIEEHRCVCRKRPLNKQELAKKEIDV  
 ISIPSKCLLLVHEPKLKVDLTKYLENQAFCFDFAFDETASNEVVYRFTARPLVQTFEGGKATCFAYGQT  
 GSGKTHTMGGDLSGKAQNASKGIYAMASRDVFLLNQPCYRKLGLEVYVTFEIFYNGKLFDLLNKKAKLR  
 VLEDGKQQVQVVLQEHLYNSADDVIKIMDMGSACRTSGQTFANSNSSRSHACFQIILRAKGRMHGKFSL  
 VDLAGNERGADTSSADRQTRMEGAEINKSLLALKECIRALGQNKHAHTPFRESKLTVQLRDSFIGENSRTC  
 MIATISPGISSCEYTLNTRYADRVKELSPHSGPSGEQLIQMETEEMEACSNALIPGNLSKEEEEELSSQ  
 MSSFNEAMTQIRELEEKAMEELKEIIQQGPDWLELSEMTEQPDYDLETFNKAESALAAQAKHFSALPDV  
 IKALRLAMQLEEASRQISSKKRPQ

SGPTRRRLE - GFP Tag - V

**Restriction Sites:** SgfI-RsrII

**Cloning Scheme:**



**ACCN:** NM\_006845

**ORF Size:** 2175 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\\_006845.2](#), [NP\\_006836.1](#)

**RefSeq Size:** 2825 bp

**RefSeq ORF:** 2178 bp

**Locus ID:** 11004

**UniProt ID:** [Q99661](#)

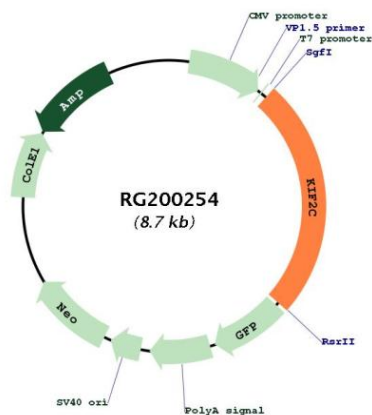
**Cytogenetics:** 1p34.1

**Domains:** kinesin

**Protein Families:** Druggable Genome

**Gene Summary:** This gene encodes a kinesin-like protein that functions as a microtubule-dependent molecular motor. The encoded protein can depolymerize microtubules at the plus end, thereby promoting mitotic chromosome segregation. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jul 2014]

## Product images:



Circular map for RG200254