

## Product datasheet for **SC115838**

### **MCAK (KIF2C) (NM\_006845) Human Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	MCAK (KIF2C) (NM_006845) Human Untagged Clone
Tag:	Tag Free
Symbol:	MCAK
Synonyms:	CT139; KNSL6; MCAK
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL6</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:**

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>OriGene sequence for NM_006845 edited
GAATTCGGCACGAGGGCGAAATTGAGGTTTCTTGGTATTGCGCGTTTCTTCTTCTTGCTG
ACTCTCCGAATGGCCATGGACTCGTTCGCTTTCAGGCCCGCTGTTCCCGGTCTCGTATC
AAGATCCAACGCAGTAATGGTTTAAATTCACAGTGCCAATGTAAGGACTGTGAACCTGGAG
AAATCCTGTGTTTCAGTGAATGGGCAGAAGGAGGTGCCACAAAGGGCAAAGAGATTGAT
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GACAATCTGCCCTTGCAGGAAAATGTAACAATCCAGAAACAAAACGGAGATCCGTCAAC
TCCAAAATTCCTGCTCCAAAAGAAAGTCTTCAAGCCGCTCCACTCGCATGTCCACTGTC
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AACTCCCACAAGCAGTTTTTCAGTTCCTCCTGCCCCACTAGGCCTTCTGCCCTGCAGTG
GCTGAAATACCATTGAGGATGGTCAGCGAGGAGATGGAAGAGCAAGTCCATTCCATCCGA
GGCAGCTCTTCTGCAAACCTGTGAACTCAGTTCGGAGGAAATCATGTCTTGTGAAGGAA
GTGAAAAAATGAAGAACAAGCGAGAAGAGAAGAGGCCAGAACTCTGAAATGAGAATG
AAGAGAGCTCAGGAGTATGACAGTAGTTTTCCAACTGGGAATTTGCCCGAATGATTA
GAATTTCCGGCTACTTTGGAATGTCATCCACTTACTATGACTGATCCTATCGAAGAGCAC
AGAATATGTGTCTGTGTTAGGAAACGCCCACTGAATAAGCAAGAATTGGCCAAGAAAAGAA
ATTGATGTGATTTCCATTCTAGCAAGTGTCTCCTTGGTACATGAACCAAGTTGAAA
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GAAGGTGGAAAAGCAACTGTTTTGCATATGGCCAGACAGGAAGTGGCAAGACACATACT
ATGGGCGGAGACCTCTCTGGGAAAGCCAGAATGCATCCAAAGGGATCTATGCCATGGCC
TCCCGGGACGCTCTCCTCCTGAAGAATCAACCTGCTACCGGAAGTTGGGCTGGAAGTC
TATGTGACATTTCTGAGATCTACAATGGGAAGCTGTTTGACTGCTCAACAAGAAGGCC
AAGCTGCGCGTGTGGAGGACGGCAAGCAACAGGTGCAAGTGGTGGGGCTGCAGGAGCAT
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AAGAGTCTTTAGCCCTGAAGGAGTGCATCAGGGCCCTGGGACAGAACAAGGCTCACACC
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AGGACTTGATGATTGCCACGATCTCACCAGGCATAAGCTCCTGTGAATATACTTTAAAC
ACCTTGAGATATGCAGACAGGGTCAAGGAGCTGAGCCCCACAGTGGGCCAAGTGGAGAG
CAGTTGATTCAAATGAAACAGAAGAGATGGAAGCCTGCTTAACGGGGCGCTGATTCCA
GGCAATTTATCCAAGGAAGAGGAGGAACTGTCTTCCAGATGTCCAGCTTTAACGAAGCC
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CAAGGACCAGACTGGCTTGAGCTCTCTGAGATGACCGAGCAGCCAGACTATGACCTGGAG
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TTCTGTTTTATGTGTTTATACATTGTATGTAACAATAAAGAGAAAAAATAAAAA
AAAAAAAAAAAAAAAAAACTCGAC
```

**5' Read Nucleotide Sequence:** >OriGene 5' read for NM\_006845 unedited  
 TTTTACCCGCCCGTTGNCGCAAAGGGCGGTAGGCGTGTACGGTGGGAGGTCTATATAAG  
 CAGAGCTCATTTAGGTGACACTATAGAATAACAAGTACTTGTCTTTTTGCAGCGGCCGC  
 GAATTCGGCAGGAGGGCGAAATTGAGGTTTCTTGGTATTGCGCGTTTCTTCTTCTGCTG  
 ACTCTCCGAATGGCCATGGACTCGTCGCTTCCAGGCCCGCTGTTCCCGGTCTCGCTATC  
 AAGATCCAACGCAGTAATGGTTTAATTCACAGTGCCAATGTAAGGACTGTGAAGTTGGAG  
 AAATCCTGTGTTTCAGTGAATGGCAGAAAGGAGGTGCCACAAAGGGCAAAGAGATTGAT  
 TTTGATGATGTGGCTGCAATAAACCCAGAACTCTTACAGCTTCTCCCTTACATCCGAAG  
 GACAATCTGCCCTTGCAAGAAAATGTAACAATCCAGAAACAAAAACGGAGATCCGTC AAC  
 TCCAAAATTCCTGCTCCAAAAGAAAGTCTTCAAGCCGCTCCACTCGCATGTCCACTGTC  
 TCAGAGCTTCGCATCACGGCTCAGGAGAATGACATGGAGGTGGAGCTGCCTGCAGCTGCA  
 AACTCCCACAAGCAGTTTTTCAGTTCCTCTGCCCCACTAGGCCTTCTGCCCTGCAGTG  
 GCTGANATACCATTGANGATGGTCAGCGAGGAGATGGAAGAGCAAGTCCATTCCATCCGA  
 GGCAGCTCTTCTGCANACCCTGTGAAGTCAAGTTCGGGAGAAATCATGTCTTGTGAANGAA  
 GTGGANAANATGAAGAACAGCGAGAAGAAAGAAAGCCAGACTCTGAATGAGATGAAGAA  
 GCTCANGATATGACAGTAGTTTTTCCAAGTGGGAATTNGNNCCGATGATAAAGATTNCGC  
 TACTTNGNATGTCATCACTTACTATGACTGATCCTATCGAGAGCACAGATATGTGTCTGT  
 GTTAGAAACGCCCN

**3' Read Nucleotide Sequence:** >OriGene 3' read for NM\_006845 unedited  
 TTATAACCTTTTTCTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTCTTTTATTGTTACATACAATGGGT  
 AAACACATAAAAACAGAAAACAGTAGGGATCCTCTAGGATCTCTAGGGAGACAGTAAAGTA  
 GAAAGAGGTCTCAGAAACATTTTTTTAAAGTACAAGACATTCAGTGTCTCGGCCCAAAGGT  
 TTTTTAGGTTTAGAGCCAGCAGATAGCTGGGCTAAAGGCTCCGTCTCTCTCCCCAGAGCC  
 AGGACAACCCAGGGAGCTCTCCATTAGCAGCCAGTCCACGCAGGCAGGATGCTGCGGAG  
 AAAGCTCTATGCTGAGAACATTCCTTCTGATGGAAAGAAGGGCAACACAAAAGGGTAACT  
 AAGAGCTCCTTCTCTCGTGAGGGCGCAACTGAGGAACAGAAAAGGAGTGTCCCATGTC  
 ACTCTGACCCCTCCCCAGCTGCCCTGGGCCAGATGCCCCATACTTGGCATTACCAG  
 AACCTGTCCCAGCTCAGACCTGCCTAGACCCACCAGGTACCCAAAGTTCTTGGGGAGG  
 GCCAGGGAAGAGGCTGGGTGTCAAACCAACAGATTTTTATTTGCAGTCGTCAGTGGGGC  
 CGTNNCTGCTGCTTATTTGTCTGCTAGCCTGCTTCCAGCTGCATGGCCAGGCCAAG  
 CCCTGATGACATCTCGAAGGCTGAGAAATGCTAGGCTTGTGGGCCGAGCANATTCCC  
 GTTTGTTCAAAAAGTCTCCAGGTCATAGTCTGCTGCTCGGTGCTCAGAAAAGCCC  
 AGGCCAGTCTGGGGCCCTGGCTGGATGGATCTCCCTGGAGCTCTACATAGCCTTCTTCT  
 CCAAGTCTGATCTGGAG

**Restriction Sites:** NotI-NotI  
**ACCN:** NM\_006845  
**Insert Size:** 3000 bp

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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](#)

**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]  
 Transcript Variant: This variant (1) represents the longest transcript and encodes the longest isoform (1).