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Product datasheet for RC200254

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:	Myc-DDK
Symbol:	MCAK
Synonyms:	CT139; KNSL6; MCAK
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC200254 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

ATGGCCATGGACTCGTCGCTTCAGGCCCGCCTGTTTCCCGGTCTCGCTATCAAGATCCAACGCAGTAATG
GTTTAATTCACAGTGCCAATGTAAGGACTGTGAACTTGGAGAAATCCTGTGTTTCAGTGGAATGGGCAGA
AGGAGGTGCCACAAAGGGCAAAGAGATTGATTTTGATGATGTGGCTGCAATAAACCCAGAACTCTTACAG
CTTCTTCCCTTACATCCGAAGGACAATCTGCCCTTGCAGGAAAATGTAACAATCCAGAAACAAAAACGGA
GATCCGTCAACTCCAAAATTCCTGCTCCAAAAGAAAGTCTTCGAAGCCGCTCCACTCGCATGTCCACTGT
CTCAGAGCTTCGCATCACGGCTCAGGAGAATGACATGGAGGTGGAGCTGCCTGCAGCTGCAAACTCCCGC
AAGCAGTTTTCAGTTCCTCCTGCCCCCACTAGGCCTTCCTGCCCTGCAGTGGCTGAAATACCATTGAGGA
TGGTCAGCGAGGAGATGGAAGAGCAAGTCCATTCCATCCGAGGCAGCTCTTCTGCAAACCCTGTGAACTC
AGTTCGGAGGAAATCATGTCTTGTGAAGGAAGTGGAAAAAATGAAGAACAAGCGAGAAGAGAAGAAGGCC
CAGAACTCTGAAATGAGAATGAAGAGAGCTCAGGAGTATGACAGTAGTTTTCCAAACTGGGAATTTGCCC
GAATGATTAAAGAATTTCGGGCTACTTTGGAATGTCATCCACTTACTATGACTGATCCTATCGAAGAGCA
CAGAATATGTGTCTGTGTTAGGAAACGCCCACTGAATAAGCAAGAATTGGCCAAGAAAGAAATTGATGTG
ATTTCCATTCCTAGCAAGTGTCTCCTCTTGGTACATGAACCCAAGTTGAAAGTGGACTTAACAAAGTATC
TGGAGAACCAAGCATTCTGCTTTGACTTTGCATTTGATGAAACAGCTTCGAATGAAGTTGTCTACAGGTT
CACAGCAAGGCCACTGGTACAGACAATCTTTGAAGGTGGAAAAGCAACTTGTTTTGCATATGGCCAGACA
GGAAGTGGCAAGACACATACTATGGGCGGAGACCTCTCTGGGAAAGCCCAGAATGCATCCAAAGGGATCT
ATGCCATGGCCTCCCGGGACGTCTTCCTCCTGAAGAATCAACCCTGCTACCGGAAGTTGGGCCTGGAAGT
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GTGCTGGAGGACGGCAAGCAACAGGTGCAAGTGGTGGGGCTGCAGGAGCATCTGGTTAACTCTGCTGATG
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CAGAAATCAACAAGAGTCTCTTAGCCCTGAAGGAGTGCATCAGGGCCCTGGGACAGAACAAGGCTCACAC
CCCGTTCCGTGAGAGCAAGCTGACACAGGTGCTGAGGGACTCCTTCATTGGGGAGAACTCTAGGACTTGC
ATGATTGCCACGATCTCACCAGGCATAAGCTCCTGTGAATATACTTTAAACACCCTGAGATATGCAGACA
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GGAAGCCTGCTCTAACGGGGCGCTGATTCCAGGCAATTTATCCAAGGAAGAGGAGGAACTGTCTTCCCAG
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GACCTTTGTGAACAAAGCGGAATCTGCTCTGGCCCAGCAAGCCAAGCATTTCTCAGCCCTGCCAGATGTC
ATCAAGGCCTTGCGCCTGGCCATGCAGCTGGAAGAGCAGGCTAGCAGACAAATAAGCAGCAAGAAACGGC
CCCAG

Protein Sequence:

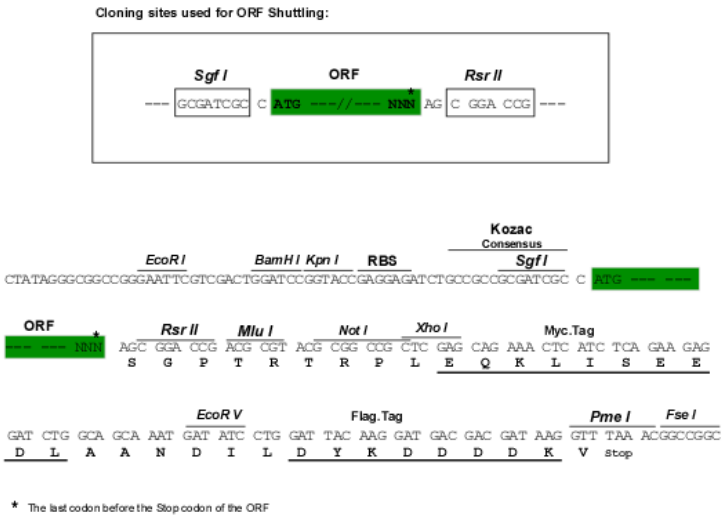
>RC200254 protein sequence
Red=Cloning site Green=Tags(s)

MAMDSSLQARLFPGLAIKIQRSNGLIHSANVRTVNLEKSCVSVEWAEGGATKGKEIDFDDVAAINPELLQ
LLPLHPKDNLPLQENVTIQKQKRRSVNSKIPAPKESLRSRSTRMSTVSELRITAQENDMEVELPAAANSR
KQFSVPPAPTRPSCPAVAEIPLRMVSEEMEEQVHSIRGSSSANPVNSVRRKSCLVKEVEKMKNKREEKKA
QNSEMRMKRAQEYDSSFPNWEFARMIKEFRATLECHPLTMTDPIEEHRICVCVRKRPLNKQELAKKEIDV
ISIPSKCLLLVHEPKLKVDLTKYLENQAFCFDFAFDETASNEVVYRFTARPLVQTIFEGGKATCFAYGQT
GSGKTHTMGGDLSGKAQNASKGIYAMASRDVFLLKNQPCYRKLGLEVYVTFFEIYNGKLFDLLNKKAKLR
VLEDGKQQVQVVGLQEHLVNSADDVIKMIDMGSACRTSGQTFANSNSSRSHACFQIILRAKGRMHGKFSL
VDLAGNERGADTSSADRQTRMEGAEINKSLLALKECIRALGQNKAHTPFRESKLTQVLRDSFIGENSRTC
MIATISPGISSCEYTLNTLRYADRVKELSPHSGPSGEQLIQMETEEMEACSNGALIPGNLSKEEEELSSQ
MSSFNEAMTQIRELEEKAMEELKEIIQQGPDWLELSEMTEQPDYDLETFVNKAESALAQQAKHFSALPDV
IKALRLAMQLEEQASRQISSKKRPQ

Chromatograms: https://cdn.origene.com/chromatograms/mk6184_b04.zip

Restriction Sites: SgfI-RsrII

Cloning Scheme:



ACCN: NM_006845

ORF Size: 2170 bp

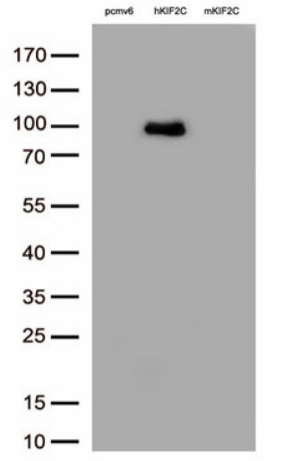
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

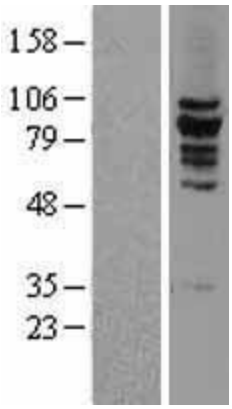
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_006845.4
RefSeq Size:	2896 bp
RefSeq ORF:	2178 bp
Locus ID:	11004
UniProt ID:	Q99661
Cytogenetics:	1p34.1
Domains:	kinesin
Protein Families:	Druggable Genome
MW:	81.3 kDa
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]

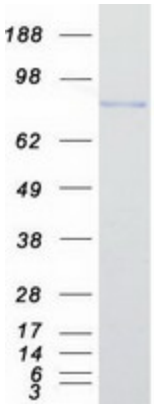
Product images:



HEK293T cells were transfected with the pCMV6-ENTRY control (Left lane) or pCMV6-ENTRY human KIF2C (RC200254, Middle lane) cDNA or pCMV6-ENTRY mouse KIF2C ([MR210280], Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-KIF2C. ([TA503320], 1:500)



Western blot validation of overexpression lysate (Cat# [LY402046]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC200254 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified KIF2C protein (Cat# [TP300254]). The protein was produced from HEK293T cells transfected with KIF2C cDNA clone (Cat# RC200254) using MegaTran 2.0 (Cat# [TT210002]).