

Product datasheet for **RC218381**

Kinesin Heavy Chain 2 (KIF2A) (NM_001098511) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Kinesin Heavy Chain 2 (KIF2A) (NM_001098511) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Kinesin Heavy Chain 2
Synonyms:	CDCBM3; HK2; KIF2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC218381 representing NM_001098511
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGCAACGGCCAACCTTCGGCAAGATCCAGATCGGGATTTACGTGGAGATCAAGCGCAGCGATGGCCGAA
 TACATCAAGCAATGGTAACATCTTTAAATGAAGATAATGAAAGTGAACGTTGAATGGATAGAAAATGG
 AGATACAAAAGGCAAAGAGATTGACCTGGAGAGCATCTTTTCACTTAACCCTGACCTTGTTCCTGATGAA
 GAAATTGAACCCAGTCCAGAAAACCTCCACCTCCAGCATCCTCAGCAAAGTAAACAAAATTTGTAAGA
 ATCGACGGACTGTAGTTCTATTAAGAATGACCCTCCTCAAGAGATAATAGAGTGGTTGGTTCAGCACG
 TGCACGGCCAGTCAATTTCTGAACAGTCTTCTCTGCACAACAGAATGGTAGTGTTCAGATATATCT
 CCAGTTCAAGCTGCAAAAAGGAATTTGGACCCCTTCACGTAGAAAATCTAATTGTGTGAAAGAAGTAG
 AAAAATGCAAGAAAACGAGAGAAAAGGAGATTGCAACAGCAAGAAGTCTAGAGAAAAAGAGCCAGGA
 CGTTGATGCTACAAACCCAAATTAATAAATTTATGTGTATGATCAGAGACTTTAGAGGAAGTTTGGATTAT
 AGACCATTAACAACAGCAGATCCTATTGATGAACATAGGATATGTGTGTGTGTAAGAAAACGACCACTCA
 ATAAAAAGAAAATCAAATGAAAGATCTTGATGTAATCACAATTCCTAGTAAAGATGTTGTGATGGTACA
 TGAACCAAAAACAAAAGTAGATTTAACAAGGTACCTAGAAAACCAAACTTTTCGTTTTGATTATGCCTTT
 GATGACTCAGCTCCTAATGAAATGGTTTACAGGTTTACTGCTAGACCACTAGTGGAACTATATTTGAAA
 GGGGAATGGCTACATGCTTTGCTTATGGGCAGACTGGAAGTGGAAAACTCATACTATGGGTGGTGACTT
 TTCAGGAAAGAACCAAGATTGTTCTAAAGGAATTTATGCATTAGCAGCTCGAGATGTCTTTTTAATGCTA
 AAGAAGCCAAACTATAAGAAGCTAGAACTTCAAGTATATGCAACCTTCTTTGAAATTTATAGTGGAAAGG
 TGTTTGACTTGCTAAACAGGAAAACAAAATTAAGAGTTCTAGAAGATGGAAAACAGCAGGTTCAAGTGGT
 GGGATTACAGGAACGGGAGGTCAAATGTGTTGAAGATGTACTGAAACTCATTGACATAGGCAACAGTTGC
 AGAACATCCGGTCAAACATCTGCAAATGCACATTCATCTCGGAGCCATGCAGTGTTCAGATTATCTTA
 GAAGGAAAGGAAAACACTACATGGCAAATTTCTCTCATTGATTTGGCTGGAAATGAAAGAGGAGCTGATAC
 TTCCAGTGCAGGACAGGCAAACTAGGCTTGAAGGTGCTGAAATTAATAAAAGCCTTTTAGCACTCAAGGAG
 TGCATCAGAGCCTTAGGTAGAAATAAACCTCATACTCCTTTCCGTGCAAGTAACTCACTCAGGTGTTAA
 GAGATTCTTTCATAGGTGAAAACCTCGTACCTGCATGATTGCCACAATCTCTCCAGGAATGGCATCCTG
 TGAATAACTCTTAATACATTAAGATATGCAAATAGAGTAAAGGAGTTTGAATTAGTCCATCAGACATT
 CCCTTCTCACAGGAGTAGTGGCAGTCGCCCTGATCTCTCTCTTCTTATGAATATGACGACTTTTCTCCTT
 CAGTTACCAGGTCAAAGAATTGACTGTAGATCCAAGTCTGCTGGTGTGTTTCGTTCAATTAATGACCA
 TCCACCAAAACAGATTGATGACTTAGAGACACAGTGGGGTGTGGGGAGTTCCCTCAGAGAGATGATCTA
 AAATCTTTTGTGAACAAAATGAAGAAGAAGTCTCTCCACAGTTGTTTACTTTCCACGAAGCTGTTTCAC
 AAATGGTAGAAATGGAAGAACAAGTTGTAGAAGATCACAGGGCAGTGTTCAGGAATCTATTCGGTGGTT
 AGAAGATGAAAAGGCCCTCTTAGAGATGACTGAAGAAGTAGATTATGATGTCGATTTCATATGCTACACAA
 CTTGAAGCTATTCTTGAGCAAAAATAGACATTTAACTGAACTGCGGGATAAAGTGAATCTTTCCGTG
 CAGCTCTACAAGAGGAGGAACAAGCCAGCAAGCAAATCAACCCGAAGAGACCCCGTGCCTT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGAT AAGGTTTAA

Protein Sequence: >RC218381 representing NM_001098511
Red=Cloning site Green=Tags(s)

MATANFGKIQIGIYVEIKRSDGRIHQAMVTSLNEDNESVTVEWIENGDTKGKEIDLESIFSLNPDLPVDE
 EIEPSPETPPPPASSAKVNKIVKNRRTVASIKNDPPSRDNRVVG SARARPSQFPEQSSSAQQNGSVSDIS
 PVQAAKKEFGPPSRKSNVCVKEVEKLQEKREKRRLLQQELREKRAQDV DATNPNYEIMCMIRDFRGLDY
 RPLTTADPIDEHRICVCRKRPLNKKETQMKDLDVITIPSKDVVMVHEPKQKVVDLTRYLENQTRFRFDYAF
 DDSAPNEMVYRFTARPLVETIFERGMATCFAYGQTGSGKTHTMGGDFSGKNQDCSKGIYALAARDVFLML
 KKP NYKKLELQVYATFFEIYSGKVFDLLNRKTKLRVLEDGKQVQVQVGLQEREVKVEDVLKLDIGNSC
 RTSQGTSANAHSSRSHAVFQIILRRKGLHKGKSLIDLAGNERGADTSSADRQTRLEGAEINKSLLALKE
 CIRALGRNKPHTPFRAKLTQVLRDSFIGENSRTCMIATISPGMASCENTLNTLRYANRVKEFGISPSDI
 PFSQSGSRPDLSPSYEYDDFPSVTRVKELTVDP TAAGDVRPIMHHPNQIDDLETQWGVGSSPQRDDL
 KLLCEQNEEVSPQLFTFHEAVSQMVEMEEQVVEDHRAVFQESIRWLEDEKALLEMTEEVDYDVDSYATQ
 LEAILEQKIDIL TELRDKVKSFRALQEEEQASKQINPKRPRAL

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_001098511

ORF Size: 2232 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_001098511.3](#)

RefSeq Size: 4172 bp

RefSeq ORF: 2235 bp

Locus ID: 3796

UniProt ID: [O00139](#)

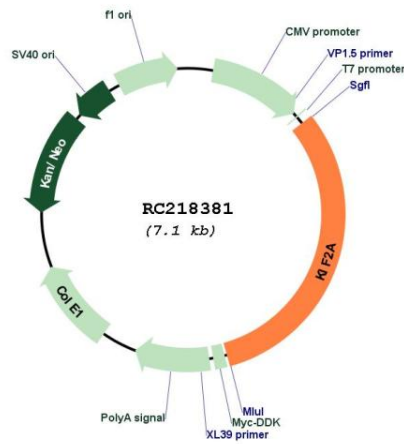
Cytogenetics: 5q12.1

Protein Families: Druggable Genome

MW: 84.1 kDa

Gene Summary: The protein encoded by this gene is a plus end-directed motor required for normal mitotic progression. The encoded protein is required for normal spindle activity during mitosis and is necessary for normal brain development. Several transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Sep 2011]

Product images:



Circular map for RC218381