

Product datasheet for **RG218381**

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:	TurboGFP
Symbol:	Kinesin Heavy Chain 2
Synonyms:	CDCBM3; HK2; KIF2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide
Sequence:**

>RG218381 representing NM_001098511
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGC**

ATGGCAACGGCCAACCTTCGGCAAGATCCAGATCGGGATTTACGTGGAGATCAAGCGCAGCGATGGCCGAA
 TACATCAAGCAATGGTAACATCTTTAAATGAAGATAATGAAAGTGAACGTGTAATGGATAGAAAATGG
 AGATACAAAAGGCAAGAGATTGACCTGGAGAGCATCTTTCACTTAACCTGACCTTGTTCTCTGATGAA
 GAAATTGAACCCAGTCCAGAAACACCTCCACCTCCAGCATCCTCAGCCAAAGTAAACAAAATTGTAAAGA
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 TGCACGGCCAGTCAATTTCTGAACAGTCTTCTCTGCACAACAGAATGGTAGTGTTCAGATATATCT
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 AAAAACTGCAAGAAAAACGAGAGAAAAGGAGATTGCAACAGCAAGAACTTAGAGAAAAAGAGCCAGGA
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 GATGACTCAGCTCCTAATGAAATGGTTTACAGGTTTACTGCTAGACCACTAGTGGAACTATATTTGAAA
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 GGGATTACAGGAACGGGAGGTCAAATGTGTTGAAGATGTACTGAACTCATTGACATAGGCAACAGTTGC
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 AGAAGATGAAAAGGCCCTCTTAGAGATGACTGAAGAAGTAGATTATGATGTCGATTATGCTACACAA
 CTTGAAGCTATTCTTGAGCAAAAAATAGACATTTAACTGAACTGCGGGATAAGTGAAATCTTTCCGTG
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ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

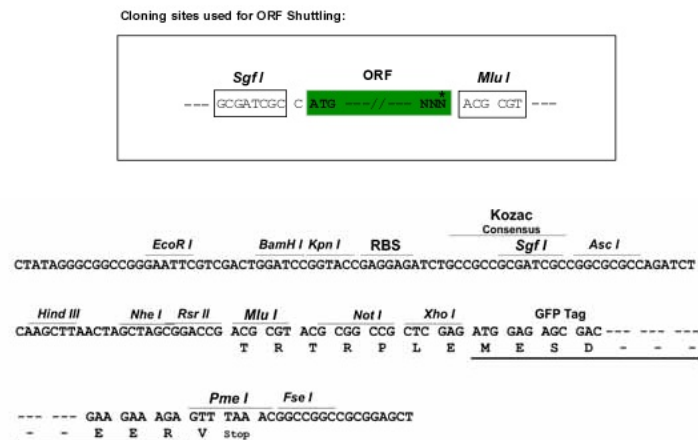
Protein Sequence: >RG218381 representing NM_001098511
 Red=Cloning site Green=Tags(s)

MATANFGKIQIGIYVEIKRSDGRIHQAMVTSLNEDNESVTVEWIENGDTKGKEIDLESIFSLNPDLPDE
 EIEPSPETPPPPASSAKVNKIVKNRRTVASIKNDPPSRDNRVVGSAARPSQFPEQSSSAQQNGSVSDIS
 PVQAAKKEFGPPSRKSNCVKEVEKLQEKREKRLQQQLREKRAQDVATNPNYEIMCMIRDFRGLDY
 RPLTTADPIDEHRICVCVRKRPLNKKETQMKDLDVITIPSKDVVMVHEPKQKVDLTRYLENQTFRFDYAF
 DDSAPNEMVYRFTARPLVETIFERGMATCFAYGQTGSGKTHTMGGDFSGKNQDCSKGIYALAARDVFLML
 KKPNNYKKLELQVYATFFEIYSGKVFDLLNRKTKLRVLEDGKQVQVVGLEQEVKCVEDVLKLIDIGNSC
 RTSGQTSANAHSSRSHAVFQIILRRKGKLHGKFSIDLAGNERGADTSSADRQTRLEGAEINKSLLALKE
 CIRALGRNKPHTPFRASKLTQVLRDSFIGENSRTCMIATISPGMASCENTLNTLYRANRVKEFGISPSDI
 PFSQSGSRPDLSPSYEYDDFPSVTRVKELTVDPATAAGDVRPIMHPPNQIDDLETQWGVGSSPQRDDL
 KLLCEQNEEEVSPQLFTFHEAVSQMVEMEEQVVEDHRAVFQESIRWLEDEKALLEMTEEDVDVDSYATQ
 LEAILEQKIDILTELRDKVKSFRALQEEEQASKQINPKRPRAL

TRTRPLE – GFP Tag – V

Restriction Sites: SgfI-MluI

Cloning Scheme:



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

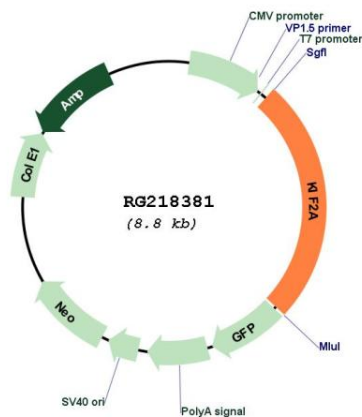
UniProt ID: [O00139](#)

Cytogenetics: 5q12.1

Protein Families: Druggable Genome

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 RG218381