OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for SC117315

Kinesin Heavy Chain 2 (KIF2A) (NM_004520) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Kinesin Heavy Chain 2 (KIF2A) (NM_004520) Human Untagged Clone
Tag:	Tag Free
Symbol:	Kinesin Heavy Chain 2
Synonyms:	CDCBM3; HK2; KIF2
Mammalian Cell Selection:	None
Vector:	pCMV6-XL5
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF:

>OriGene sequence for NM_004520 edited
GAATTCGGCACGAGGTCCCTCGGCCCGCTGCTGCTGCTCCAGATGAGGTGATGGCAACGG
CCAACTTCGGCAAGATCCAGATCGGGATTTACGTGGAGATCAAGCGCAGCGATGGCCGAA
TACATCAAGCAATGGTAACATCTTTAAATGAAGATAATGAAAGTGTAACTGTTGAATGGA
TAGAAAATGGAGATACAAAAGGCAAAGAGATTGACCTGGAGAGCATCTTTTCACTTAACC
CTGACCTTGTTCCTGATGAAGAAATTGAACCCAGTCCAGAAACACCTCCACCTCCAGCAT
CCTCAGCCAAAGTAAACAAAATTGTAAAGAATCGACGGACTGTAGCTTCTATTAAGAATG
ACCCTCCTTCAAGAGATAATAGAGTGGTTGGTTCAGCACGTGCACGGCCCAGTCAATTTC
CTGAACAGTCTTCCTCTGCACAACAGAATGGTAGTGTTTCAGATATATCTCCAGTTCAAG
CTGCAAAAAAGGAATTTGGACCCCCTTCACGTAGAAAATCTAATTGTGTGAAAGAAGTAG
AAAAACTGCAAGAAAAACGAGAGAAAAGGAGATTGCAACAGCAAGAACTTAGAGAAAAAA
GAGCCCAGGACGTTGATGCTACAAACCCAAATTATGAAATTATGTGTATGATCAGAGACT
TTAGAGGAAGTTTGGATTATAGACCATTAACAACAGCAGATCCTATTGATGAACATAGGA
TATGTGTGTGTGTAAGAAAACGACCACTCAATAAAAAAGAAACTCAAATGAAAGATCTTG
ATGTAATCACAATTCCTAGTAAAGATGTTGTGATGGTACATGAACCAAAACAAAAAGTAG
ATTTAACAAGGTACCTAGAAAACCAAACATTTCGTTTTGATTATGCCTTTGATGACTCAG
CTCCTAATGAAATGGTTTACAGGTTTACTGCTAGACCACTAGTGGAAACTATATTTGAAA
GGGGAATGGCTACATGCTTTGCTTATGGGCAGACTGGAAGTGGAAAAACTCATACTATGG
GTGGTGACTTTTCAGGAAAGAACCAAGATTGTTCTAAAGGAATTTATGCATTAGCAGCTC
GAGATGTCTTTTTAATGCTAAAGAAGCCAAACTATAAGAAGCTAGAACTTCAAGTATATG
CAACCTTCTTTGAAATTTATAGTGGAAAGGTGTTTGACTTGCTAAACAGGAAAACAAAAT
TAAGAGTTCTAGAAGATGGAAAACAGCAGGTTCAAGTGGTGGGATTACAGGAACGGGAGG
TCAAATGTGTTGAAGATGTACTGAAACTCATTGACATAGGCAACAGTTGCAGAACATCCG
GTCAAACATCTGCAAATGCACATTCATCTCGGAGCCATGCAGTGTTTCAGATTATTCTTA
GAAGGAAAGGAAAACTACATGGCAAATTTTCTCTCATTGATTTGGCTGGAAATGAAAGAG
GAGCTGATACTTCCAGTGCGGACAGGCAAACTAGGCTTGAAGGTGCTGAAATTAATAAAA
GCCTTTTAGCACTCAAGGAGTGCATCAGAGCCTTAGGTAGAAATAAACCTCATACTCCTT

View online »

TCCGTGCAAGTAAACTCACTCAGGTGTTAAGAGATTCTTTCATAGGTGAAAACTCTCGTA
CCTGCATGATTGCCACAATCTCTCCAGGAATGGCATCCTGTGAAAATACTCTTAATACAT
TAAGATATGCAAATAGAGTAAAGGAGTTTGGAATTAGTCCATCAGACATTCCCTTCTCAC
AGGGTAGTGGCAGTCGCCCTGATCTCTCTCCTTCTTATGAATATGACGACTTTTCTCCTT
CAGTTACCAGGGTCAAAGAATTGACTGTAGATCCAACTGCTGCTGGTGATGTTCGTCCAA
TAATGCACCATCCACCAAACCAGATTGATGACTTAGAGACACAGTGGGGTGTGGGGAGTT
CCCCTCAGAGAGATGATCTAAAACTTCTTTGTGAACAAAATGAAGAAGAAGTCTCTCCAC
AGTTGTTTACTTTCCACGAAGCTGTTTCACAAATGGTAGAAATGGAAGAACAAGTTGTAG
AAGATCACAGGGCAGTGTTCCAGGAATCTATTCGGTGGTTAGAAGATGAAAAGGCCCTCT
TAGAGATGACTGAAGAAGTAGATTATGATGTCGATTCATATGCTACACAACTTGAAGCTA
TTCTTGAGCAAAAAATAGACATTTTAACTGAACTGCGGGATAAAGTGAAATCTTTCCGTG
CAGCTCTACAAGAGGAGGAACAAGCCAGCAAGCAAATCAACCCGAAGAGACCCCGTGCCC
TTTAAACCGGCATTTGCTGCTAAAGGATACCCAGAACCCTCACTACTGTAACATACAACG
GTTCAGCTGTAAGGGCCATTTGAAAGTTTGGAATTTTAAGTGTCTGTGGAAAATGTTTTG
TCCTTCACCTGAATTACATTTCAATTTTGTGAAACACTCTTTTGTCTACAAAATGCTTCT
AGTCCAGGAGGCACAACCAAGAACTGGGATTAATGAAGCATTTTGTTTCATTTACACAAA
TAGTGATTTACTTTTGGAGATCCTTGTCAGTTTTATTTTCTATTTGATGAAGTAAGACTG
TGGACTCAATCCAGAGCCAGATAGTAGGGGGAAGCCACAGCATTTCCTTTTAACTCAGTT
CAATTTTTGTAGTGAGACTGAGCAGTTTTAAATCCTTTGCGTGCATGCATACCTCATCAG
TGATTGTACATACCTTGCCCACTCCTAGAGACAGCTGTGCTCACCTTTTCCTGCTTTGTG
CCTTGATTAAGGCTACTGACCCTAAATTTCTGAAGCACAGCCAAGAAAAATTACATTCCT
TGTCATTGTAAATTACCTTTGTGTGTACATTTTTACTGTATTTGAGACATTTTTTGTGTG
TGACTAGTTAATTTTGCAGGATGTGCCATATCATTGAACGGAACTAAAGTCTGTGACAGT
GGATATAGCTGCTGGACCATTCCATCTTATATGTAAAGAAATCTGGAATTATTATTTTAA
AACCATATAACATGTGATTATAATTTTTCTTAGCATTTTCTTTGTAAAGAACTACAATAT
AAACTAGTTGGTGTATAATAAAAAGTAATGAAATTCAAAAAAAAAAAAAAAAAAACTCGAC

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_004520 unedited
AATACGACTCACTATAGGGCGGCCGCGAATTCGGCACGAGGTCCCTCGGCCCGCTGCTGC
TGCTCCAGATGAGGTGATGGCAACGGCCAACTTCGGCAAGATCCAGATCGGGATTTACGT
GGAGATCAAGCGCAGCGATGGCCGAATACATCAAGCAATGGTAACATCTTTAAATGAAGA
TAATGAAAGTGTAACTGTTGAATGGATAGAAAATGGAGATACAAAAGGCAAAGAGATTGA
CCTGGAGAGCATCTTTTCACTTAACCCTGACCTTGTTCCTGATGAAGAAATTGAACCCAG
TCCAGAAACACCTCCACCTCCAGCATCCTCAGCCAAAGTAAACAAAATTGTAAAGAATCG
ACGGACTGTAGCTTCTATTAAGAATGACCCTCCTTCAAGAGATAATAGAGTGGTTGGTTC
AGCACGTGCACGGCCCAGTCAATTTCCTGAACAGTCTTCCTCTGCACAACAGAATGGTAG
TGTTTCAGATATATCTCCAGTTCAAGCTGCAAAAAAGGAATTTGGACCCCCTTCACGTAA
CTAAATCTAATTGTGTGAAAGAAGTAGAAAAACTGCAAGAAAAACGAGAGAAAAGGAGAA
TTGCACAGCAAGAACTTAGAGAANAAAGAGCCCAGGACGTTGATGCTACANACCCAAATT
ATGAAATTATGTGTATGATCAGAGACTNTAGAGGAAAGTTTGATTATAGACCATTNACCA
CAGCAGATCCTATTGATGAACATANGATATGTGNTGTGTGTAAGAAAACCGACCCACTCA
TANNAAAGAAACTCAAATGAAAAGATCTTGATGTAATCACAATTCCTAGTAAAGATGTNG
NGATGGTCCATGAACCCAAACAAAAGTAGATTTACAGGTACCTANAAAACCACCATTTCG
TTTGATTATGCTTTGAGACTCACTCCTATGAATGGNTT

3' Read Nucleotide Sequence:

```
>OriGene 3' read for NM_004520 unedited
TTGGACCGCGNGCCGCAATCTAGAGTCGAGTTTTTTTTTTTTTTTTTTGAATTTCATTAC
TTTTTATTATACACCAACTAGTTTATATTGTAGTTCTTTACAAAGAAAATGCTAAGAAAA
ATTATAATCACATGTTATATGGTTTTAAAATAATAATTCCAGATTTCTTTACATATAAGA
TGGAATGGTCCAGCAGCTATATCCACTGTCACAGACTTTAGTTCCGTTCAATGATATGGC
ACATCCTGCAAAATTAACTAGTCACACACAAAAAATGTCTCAAATACAGTAAAAATGTAC
ACACAAAGGTAATTTACAATGACAAGGAATGTAATTTTTCTTGGCTGTGCTTCAGAAATT
TAGGGTCAGTAGCCTTAATCAAGGCACAAAGCAGGAAAAGGTGAGCACAGCTGTCTCTAG
GAGTGGGCAAGGTATGTACAATCACTGATGAGGTATGCATGCACGCAAAGGATTTAAAAC
TGCTCAGTCTCACTACAAAAATTGAACTGAGTTAAAAGGAAATGCTGTGGCTTCCCCCTA
CTATCTGGCTCTGGATTGAGTCCACAGTCTTACTTCATCAAATAGAAAATAAAACTGACA
AGGATCTCCAAAAGTAAATCACTATTTGTGTAAATGAAACAAAATGCTTCATTAATCCCA
GTTCTTGGTTGTGCCTCCTGGACTAGAAGCATTTTGTAGACAAAAGAGTGTTTCACAAAA
TTGAAATGTAATTCAGGTGAAGGACAAAACATTTTCCACAGACACTTAAAATTCCAAACT
TTCAAATGGNCCCTTACAGCTGAACCGTTGTATGTTACAGTAGTGAAGGGGTCTGGGTAT
CCTTTAGCAGCAAATGCCGGNTTAAAGGGCACGGNNGTCTCTTNCGGNNTGNNATTGCTG
CTGGGCTGTTCCTCCTT
```

Restriction Sites: NotI-NotI

ACCN: NM_004520

Insert Size: 3200 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

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_004520.1, NP_004511.1

RefSeq Size: 2905 bp

RefSeq ORF: 2040 bp

Locus ID: 3796

UniProt ID: O00139

Cytogenetics: 5q12.1

Domains: kinesin

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]
Transcript Variant: This variant (1) lacks an alternate in-frame exon compared to variant 2. The resulting isoform (1) has the same N- and C-termini but is shorter compared to isoform 2.
Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.