

## Product datasheet for **RC221331**

### **KIF3A (NM\_007054) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	KIF3A (NM_007054) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	KIF3A
Synonyms:	FLA10; KLP-20
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

**ORF Nucleotide  
Sequence:**

>RC221331 representing NM\_007054  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGCCGATCAATAAATCAGAGAAGCCAGAAAGCTGCGATAATGTGAAGGTTGTTGTTAGGTGCCGCCCC  
 TCAATGAGAGAGAGAAATCAATGTGCTACAAACAGGCTGTCAGTGTGGATGAGATGAGGGAACTATCAC  
 TGTACATAAGACTGATTCTTCCAATGAACCTCCAAAGACATTTACTTTTGATACTGTTTTGGACCAGAG  
 AGTAAACAACCTTGATGTTTATACTTAACTGCAAGACCTATTATTGATTCTGTACTTGAAGGCTACAATG  
 GGACTATTTTGCATATGGACAAACCGGAACAGGCAAACTTTTACCATGGAAGGTGTTGCGAGCTATTCC  
 TGAACCTAGAGGAATAATTCCCAATTCATTTGCTCACATATTTGGTCATATTGCAAAAGCGGAGGGTGAT  
 ACAAGATTTTGGTTGAGTGTCTTATTGGAAATATATAATGAAGAAGTTCGTGACCTTTGGGCAAGG  
 ATCAGACACAAAGGTTAGAGGTTAAAGAAAGACCTGATGTGGGAGTTTATATCAAAGATTTATCAGCTTA  
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 ACTAATATGAACGAACATAGTCCCGTTCCCATGCCATCTTACAATTACTATAGAATGCAGTGAAAAAG  
 GCATTGATGGTAACATGCATGTCAGGATGGGGAAGCTCCATCTTGTAGATCTTGCTGGTTGAGAAAGACA  
 GGCAAAAAGCTGGAGCTACTGGACAGCGCCTAAAGGAAGCTACAAAAATCAATCTTTCACCTTCCACCCCT  
 GGTAATGTAATTTCTGCCTTGGTTGATGGAAAAAGCACTCATGTGCCTTATCGTAACTCTAACTGACTC  
 GTCTTCTCAGGATTCCTTAGGAGGAAATTCAAAAACCATGATGTGTGCAAAATTTGGGCCAGCAGATTA  
 CAATATGATGAAACTATCAGTACATTACGGTATGCCAATCGTGCTAAGAATATTAATAAAGCTAGA  
 ATTAATGAAGATCCAAAGGATGCTTTGCTGCGTCAGTTCAGAAAGAAATAGAAGAACTGAAAAAGAAGC  
 TTGAAGAAGGAGAAGAAATATCAGGCTCTGATATCAGTGGGTGAGAGGAAGATGATGATGAAGAGGTTGA  
 GGTTGGAGAAGATGGAGAGAAAAGGAAAAAAGAGGGGAAAAAAGAAAGTCTCCCCAGACAAGATGATT  
 GAAATGCAAGCAAAAATTGATGAGGAGAGAAAAGCACTTGAAACAAAGCTCGACATGGAAGAAGAAGAAA  
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 TTTGCTGGAAAAATTATCTGCCCTGGAAAAAGGTAATTGTTGGTGGGTTGACTTGTGGCCAAAGCT  
 GAGGAACAAGAGAACTTCTTGAAGAATCTAACATGGAAGTGAAGAAAGGAGGAAAAGAGCAGAGCAAC  
 TTCGCAGAGAATTGAGGAAAAAGCAAGAACGCTTGGATATTGAAGAAAAATATACCAGTTTGAAGA  
 GGAAGCACAGGAAAGACCAAGAAGTTAAAGAAAGTTGGACTATGCTGATGGCTGCAAAGTCAGAGATG  
 GCTGATCTCCAACAAGAACATCAGAGGAAATTAAGGCCTACTGGAGAACATTCGGCAACTTAGCCGGG  
 AGCTTCGACTTCAGATGCTTATTATTGATAACTTTATACCTCGGGATTATCAGGAAATGATTGAAAAC  
 TGTCATTGGAATGAAGACATAGGAGAATGGCAGCTAAAATGTGTGCTTATACAGGAAATAACATGAGG  
 AAGCAAAACCCAGTACCTGATAAAAAGGAGAAAGATCCCTTTGAGGTGGACCTTTCTCACGTGATCTTG  
 CCTATACTGAGGAGAGTCTGCGTCAGTCTTTGATGAAACTAGAAAAGACCAGAACTTCAAAGGGGAAAGC  
 AAGGCCAAAGACAGGGAGAAGAAAGCGTTCTGCAAAGCCTGAACTGTAATTGACTCTTTACTGCAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC221331 representing NM\_007054  
Red=Cloning site Green=Tags(s)

MPINKSEKPECDNVKVVVRCRPLNEREKSMCYKQAVSVDEMRTITVHKTDSSNEPPKTFTFDVFVGPE  
 SKQLDVYNLTARPIIDSVLEGYNGTIFAYGQTGTGKTFMEGVRAIPELRGIIPNSFAHIFGHIKAEGD  
 TRFLVRVSYLEIYNEEVRDLLGKDQTRLEVKERPVDGVYIKDL SAYVVNNADDMDRIMTLGHKNRSVGA  
 TNMNEHSSRSHAI FTITIECSEKIDGNMHV RMGKHLV DLAGSERQAKTGATGQRLKEATKINLSLSTL  
 GNVISALVDGKSTHVPYRNSKLTRLLQDSLGGNSKTMMCANIGPADYNYDETISTLRYANRAKNIK NKAR  
 INEDPKDALLRQFQKEIEELKKKLEEGEEISGSDISGSEDDDEEGEVGEDGEKRKKRRGKKVSPDKMI  
 EMQAKIDEERKALETKLDMEEEERNKARAELEKREKDLLKAQQEHQSLLEKLSALEKKVI VGGVDLLAKA  
 EEQEKLLEESNMLEERKR AEQLRRELEEKEQERLDIEEKYTSLQEEAQGKTKLKKVWMLMAAKSEM  
 ADLQQEHQREIEGLLENIRQLSRELRLQMLIIDNFIPRDYQEMIENYVHWNEDIGEWQLKCVAYTGNMNR  
 KQTPVPDKKEKDPFEVDLSHVYLAYTEESLRQSLMKLERPRTSKGKARPKTGRKRSAKPETVIDSLLQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk8116\\_d07.zip](https://cdn.origene.com/chromatograms/mk8116_d07.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_007054

**ORF Size:** 2097 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](#)

**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\\_007054.7](#)

**RefSeq Size:** 6257 bp

**RefSeq ORF:** 2100 bp

**Locus ID:** 11127

**UniProt ID:** [Q9Y496](#)

**Cytogenetics:** 5q31.1

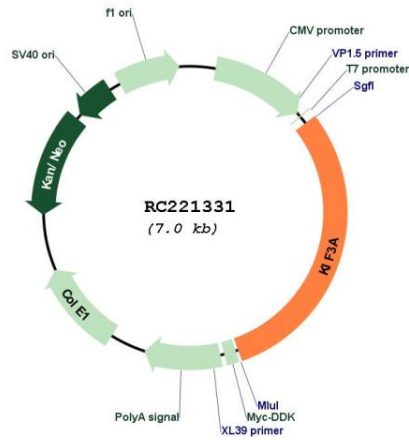
**Domains:** kinesin

**Protein Families:** Druggable Genome

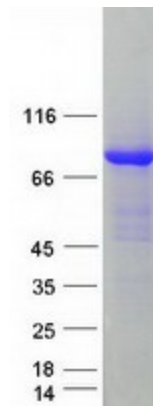
**MW:** 80 kDa

**Gene Summary:** Microtubule-based anterograde translocator for membranous organelles. Plus end-directed microtubule sliding activity in vitro. Plays a role in primary cilia formation. Plays a role in centriole cohesion and subdistal appendage organization and function. Regulates the formation of the subdistal appendage via recruitment of DCTN1 to the centriole. Also required for ciliary basal feet formation and microtubule anchoring to mother centriole. [UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RC221331



Coomassie blue staining of purified KIF3A protein (Cat# [TP321331]). The protein was produced from HEK293T cells transfected with KIF3A cDNA clone (Cat# RC221331) using MegaTran 2.0 (Cat# [TT210002]).