

Product datasheet for **RG234521**

KIF22 (NM_001256270) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	KIF22 (NM_001256270) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	KIF22
Synonyms:	A-328A3.2; KID; KNSL4; OBP; OBP-1; OBP-2; SEMDJL2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG234521 representing NM_001256270
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGACAGCTGCTCTCTAGAGATTGCTAACTGGAGGAACCACCAGGAGACTCTCAAATACCAAGTTTGATG
 CCTTCTATGGGGAGAGGAGTACTCAGCAGGACATCTATGCAGGTTCAAGTGCAGCCCATCCTAAGGCACTT
 GCTGGAAGGGCAGAATGCCAGTGTGCTTGCCTATGGACCCACAGGAGCTGGGAAGACGCACACAATGCTG
 GGCAGCCACAGCAACCTGGGGTATCCCGCGGGCTCTCATGGACCTCCTGCAGCTCACAAGGGAGGAGG
 GTGCCAGGGCCGCCATGGGCCCTTCTGTACCATGTCTTACCTAGAGATCTACCAGGAGAAGGTATT
 AGACCTCTGGACCTGCTTCGGGAGACCTGGTAATCCGAGAAGACTGCCGGGGGAATATCTGATTCCG
 GGTCTCTCCAGAAGCCATCAGTAGCTTGTGATTTTGTAGCGGCACTTCTGCCAGCCAGTCGAAATC
 GGACTGTAGGAGCCACCCGGCTCAACCAGCGCTCCTCCCGCAGTCATGCTGTGCTCCTGGTCAAGGTGGA
 CCAGCGGAACGTTTGGCCCATTTCCGCCAGCAGAGGGAAAACCTACCTGATTGACTTGGCTGGGTCA
 GAGGACAACCGCGCACAGGCAACAAGGCCTTCGGCTAAAAGAGAGTGGAGCCATCAACACCTCCCTGT
 TTGTCCTGGGCAAAGTGGTAGATGCGCTGAATCAGGGCCTCCCTCGTGTACCTTATCGGGACAGCAAGCT
 CACTCGCCTATTGCAGGACTCTCTGGGTGGCTCAGCCACAGTATCCTTATTGCCAATTTGCCCTGAG
 AGACGCTTCTACCTAGACACAGTCTCCGCACTCAACTTTGCTGCCAGGTCCAAGGAGGTGATCAATCGGC
 CTTTTACCAATGAGAGCCTGCAGCCTCATGCCTTGGGACTGTTAAGCTGTCTCAGAAAGAATTGCTTGG
 TCCACCAGAGGCAAGAGAGCCCGAGGCCCTGAGGAAGAGGAGATCGGGAGCCCTGAGCCATGGCAGCT
 CCAGCCTCTGCCTCCAGAAAACTCAGCCCTACAGAAGCTAAGCAGCATGGACCCGGCCATGCTGGAGC
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 GCTAATTCAGGAGCAGGCAGCATCCCCAAATGCCGAGATCCACATCCTGAAGAATAAAGGCCGAAGAGA
 AAGCTGGAGTCCCTGGATGCCCTAGAGCCTGAGGAGAAGGCTGAGGACTGCTGGGAGCTACAGATCAGCC
 CGGAGCTACTGGCTCATGGCGCCAAAAAATACTGGATCTGCTGAACGAAGGCTCAGCCGAGATCTCCG
 CAGTCTTCAGCGCATTGGCCGAAGAAGGCCAGCTAATCGTGGGCTGGCGGAGCTCCACGGCCCTTC
 AGCCAGGTGGAGACCTGGAACGCGTGGAGGGCATAACGGGGAACAGATGGAGTCTTCTGAAGGCAA
 ACATCCTGGGTCTCGCCCGGCCAGCGCTGTGGCGCTCC

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

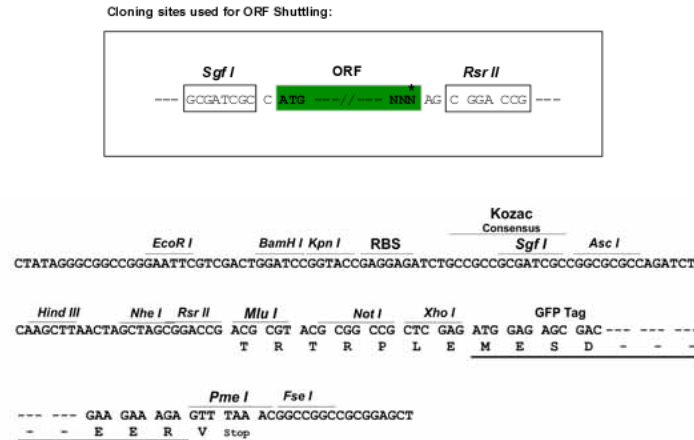
>RG234521 representing NM_001256270
 Red=Cloning site Green=Tags(s)

MDSCSLEIANWRNHQETLKYQFDFYGERSTQQDIYAGSVQPILRHLLEGQNASVLYGPTGAGKTHTML
 GSPEQPGVIPRALMDLLQLTREEGAEGRPWALSVTMSYLEIYQEKVLDLLDPASGDLVIREDCRGNILIP
 GLSQKPISSFADFERHFLPASRNRTVGATRLNQRSSRSHAVLLVKVDQRERLAPFRQREGKLYLIDLAGS
 EDNRRRTGNKGLRLKESGAINSTLFLVKGVDALNQGLPRVPYRDSKLTRLLQDSLGGSAHSILIANIAPE
 RRFYLDTVSALNFAARSKEVINRPFTNESLQPHALGPVKLSQKELLPPEAKRARGPEEEEEIGSPEPMAA
 PASASQKLSPLQKLSMMPAMLERLLSLDRLLASQGSQGAPLLSTPKRERMVLMKTVEEKDLEIERLKTK
 QKELEAKMLAQKAEKENHCPTMLRPLSHRTVTGAKPLKKAIVMPLQLIQEQAASPNAEIHILKNKGRKR
 KLESLDALEPEEKAEDCWELQISPELLAHGRQKILDLLNEGSARDLRSLQRIGPKKAQLIVGWRELHGPF
 SQVEDLERVEGITGKQMESFLKANILGLAAGQRCGAS

SGP**TRTRRLE** - GFP Tag - V

Restriction Sites:

Sgfl-RsrII

Cloning Scheme:


ACCN: NM_001256270

ORF Size: 1791 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_001256270.1](#), [NP_001243199.1](#)

RefSeq Size: 2296 bp

RefSeq ORF: 1794 bp

Locus ID: 3835

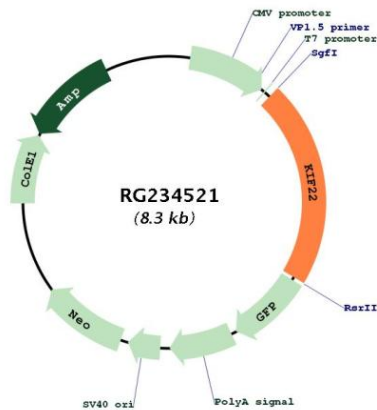
UniProt ID: [Q14807](#)

Cytogenetics: 16p11.2

Protein Families: Druggable Genome

Gene Summary: The protein encoded by this gene is a member of the kinesin-like protein family. The family members are microtubule-dependent molecular motors that transport organelles within cells and move chromosomes during cell division. The C-terminal half of this protein has been shown to bind DNA. Studies with the *Xenopus* homolog suggests its essential role in metaphase chromosome alignment and maintenance. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jan 2012]

Product images:



Circular map for RG234521