

Product datasheet for **MR211329**

Kif5b (NM_008448) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Kif5b (NM_008448) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Kif5b
Synonyms:	AL022807; Khc; Khcs; Kns1; Ukhc
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR211329 representing NM_008448
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGCGGACCCGGCGGAGTGCAACATCAAAGTGATGTGTCGCTTCAGACCTCTCAACGAATCTGAAGTGA
 ACCGCGCGGATAAGTACGTCGCCAAATTCAGGGAGAAGACACGGTGATGATCGCGTCCAAGCCTTATGC
 CTTTGATCGTGTGTTCCAGTCAAGCACATCTCAAGAGCAAGTATACAACGACTGTGCAAAAAAGATTGTT
 AAAGATGTTCTTGAGGGCTATAATGGAACAATATTTGCATATGGACAAACATCATCTGGGAAGACCCACA
 CGATGGAGGGTAAACTTCATGATCCAGAAGGCATGGGAATTATTCGAAGAATAGTGAAGATATTTTTAA
 TTATATTTACTCCATGGATGAAAATTTGGAATTCATATTAAGGTTTCATATTTTGAAATATATTTGGAT
 AAGATAAGGGACTTGTTAGATGTTTCAAAGACTAACCTTTCAGTCCATGAAGACAAAACCGTGTCCCT
 ATGTAAGGGGTGCACAGAACGTTTCGTGTGTAGTCCAGATGAAGTCATGGATACCATAGATGAAGGGAA
 ATCCAACAGACATGTCGAGTTACAAATATGAATGAACATAGCTCTAGGAGTCACAGCATATTTCTTATT
 AATGTA AAAACAAGAGAATACACAACCGAACAGAACTCAGTGGAAAGCTTTATCTGGTTGATTTAGCTG
 GCAGTGAGAAGGTTAGTAAGACTGGGGCTGAAGGTGCTGTGCTGGATGAAGCTAAGAACATCAACAAGTC
 ACTTTCTGCACCTTGGAAATGTCATTTCTGCTTTGGCAGAGGGCAGTACCTATGTTCTTATCGAGATAGT
 AAAATGACCAGAAATCTCAAGATTCATTAGGTGGCAACTGTAGGACCATTGTCATATGCTGCTCTC
 CATCATACATAATGAGTCTGAGACAAAGTCAACACTCCTCTTTGGTCAAAGGGCCAAAACAATTAAGAA
 CACAGTCTGTGCAATGTAGAGTTAACTGCGGAGCAGTGGAAAAAGAAGTATGAAAAAGAAAAGGAAAA
 AATAAAACTCTACGGAACACTATTCAGTGGCTGGAAAACGAGCTAAACCGTTGGCGTAACGGGGAGACAG
 TGCCTATTGATGAGCAGTTTGACAAAGAGAAAGCTAATTTGGAAGCCTTCACAGCGGATAAAGATATTGC
 TATTACCAGTGATAAACACAGCTGCTGCGAGTCGGAATGGCTGGTAGTTTTACCGATGCTGAAAGAAGAAAG
 TGTGAAGAAGAATTGCTAAATTGTATAAACTTGTGACAAGGATGAAGAGATTAACCAACAAAGCC
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 AGATAATATGCAAGCTGAAGTGAATCGCTCCAAGCAGAAAATGATGCTTCTAAAGAAGAAGTCAAAGAA
 GTTTTACAGGCCCTAGAGGAAGTGGCTGTTAATTATGATCAGAAGTCTCAGGAAGTTGAAGACAAAAACA
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 TCAGAAGCTGAAGGAAATGACCAACCACCAGAAGAACGAGCAGCTGAAATGATGGCATCATTATAAAA
 GACCTTGACAGAAATAGGAATTGCTGTGGGGAATAACGATGTGAAGCAACCAGAAGGAAGTGTATGATAG
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 GCATGCCAGCTTCGGATCTCCCAACATGAAGCCAAAATCAAGTCACTGACTGAGTACCTTCAGAATGTAG
 AACAAAAGAAGAGGCAGCTGGAGGAGTCTGTTGATTCCCTTGGTGGAGGAGCTAGTCCAACCTCCGAGCACA
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 GTTGAGCAGCAGATCCAGAGTACAGAGAAACCCACAAAAACAATCAGTAGTTTGGCAGATGAAGTGG
 AGGCAAAGGAAAAGCTAATCACTGACCTCCAAGACCAAAACAGAAAGTGGTGTGGAGCAGGAACGGCT
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 CAGCTCACAAAGTGCACAAGCAGTTGGTACGCGATAATGCAGATCTTCGCTGTGAGCTTCTAAGTTAG
 AGAAACGGCTTAGAGCTACTGCAGAAAGAGTGAAGCTTTGGAGTCAGCCCTGAAAGAAGCCAAAGAAAA
 TGCATCTCGAGACCGTAAACGCTATCAGCAAGAAGTAGACCGGATAAAGGAAGCAGTCAGGTCAAAGAAC
 ATGGCCAGAAGGGGACATTTGCCCAGATTGCAAAGCCGATCCGTCTGGACAGCATCCAGCGCCCTCGC
 CAACTCACCCGGGCACAGTTCGTGGAGGAGGCTCATTGTTTCAGAAACAACAGCCAGTGGGGCTTCGTGG
 TGGTGGAGGCAAGCAGTCG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR211329 representing NM_008448
 Red=Cloning site Green=Tags(s)

MADPAECNIKVMCRFRPLNESEVNRGDKYVAKFQGEDTVMIAASKPYAFDRVFSSTSQEQQVYNDCAKKIV
 KDVLEGYNGTIFAYGQTSSGKTHMEGLHDPEGMGIIPRIVQDIFNYIYSMDENLEFHIKVSYFEIYLD
 KIRDLLDVSKTNLSVHEDKNRPVYVKGCTERFVCSPEVMDTIDEGKSNRHVAVTNMNEHSSRSHSIFLI
 NVKQENTQTEQKLSGKLYLVDLAGSEKVSKTGAEGAVLDEAKNINKLSALGNVISALAEGSTYVPYRDS
 KMTRILQDSLGGNCRITIVICCSPPSYNESETKSTLLFGQRAKTIKNTVCVNVLETAEQWKKKYEKEKEK
 NKTLRNTIQWLENELNRWRNGETVPIDEQFDKEKANLEAFTADKDIAITSDKPAAAVGMAGSFTDAERRK
 CEEELAKLYKQLDDKDEEINQSQLVEKLTQMLDQEELLASTRDQDNMQAELNRLQAENDASKEEVEKE
 VLQALEELAVNYDQKSQEVEDKTKYEYLLSDELNQSATLASIDAELQKLKEMTNHQKRAEMMASLLK
 DLAEIGIavgNNDVQPEGTGMIDEFTVARLYISKMKSEVKTVMKRCKQLESTQTESNKKMEENEKELA
 ACQLRISQHEAIKSLTEYLQNVEQKKRQLEESVDSLGEELVQLRAQEKVHEMEKEHLNKKVQTANEVQQA
 VEQQIQSHRETHQKQISSLRDEVEAKEKITDLQDQNKQMVLEQERLVEHERLKATDQEKSRKLHELTV
 MQDRREQARQDLKGL EETVAKELQTLHNLKLFVQDLATRVKKS AEVSDSDTGGSAQKQKISFLENNLE
 QLTKVHKQLVRDNADLRCELPKLEKRLRATAERVKALESALKEAKENASDRDKRYQQEVDRIKEAVRSKN
 MARRGHSAQIAKPIRPGQHPAASPHTPGTVRGGGSFVQNNQPVGLRGGGGKQS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mm9037_c02.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



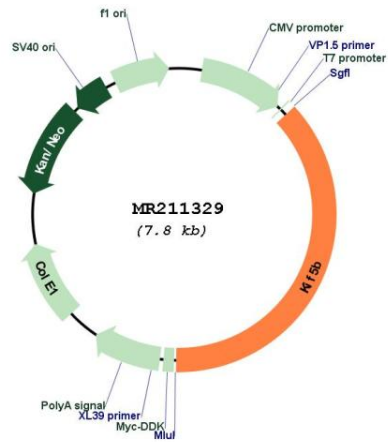
* The last codon before the Stop codon of the ORF

ACCN: NM_008448

ORF Size: 2889 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 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:	<ol style="list-style-type: none"> 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_008448.3 , NP_032474.2
RefSeq Size:	6030 bp
RefSeq ORF:	2892 bp
Locus ID:	16573
UniProt ID:	Q61768
Cytogenetics:	18 4.46 cM
MW:	110 kDa
Gene Summary:	Microtubule-dependent motor required for normal distribution of mitochondria and lysosomes. May be involved in the mechanisms of growth arrest induced by exposure to DNA-damaging drugs or by cellular senescence (PubMed:9657148). Can induce formation of neurite-like membrane protrusions in non-neuronal cells in a ZFYVE27-dependent manner (PubMed:21976701). Regulates centrosome and nuclear positioning during mitotic entry. During the G2 phase of the cell cycle in a BICD2-dependent manner, antagonizes dynein function and drives the separation of nuclei and centrosomes. Required for anterograde axonal transportation of MAPK8IP3/JIP3 which is essential for MAPK8IP3/JIP3 function in axon elongation (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR211329