

Product datasheet for MR211477

Kif5a (NM_008447) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Kif5a (NM_008447) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Kif5a
Synonyms:	D10Bwg0738e; Khc; Kif5; Kns; mKIAA4086
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR211477 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCGGAGACTAACACGAATGCAGCATCAAGGTGCTTTGCCGATTTCCGCCCTGAACCAGGCCGAGA
TTCTGCGGGGGACAAGTTCATCCCATTTTCCAAGGGGACGACAGCGTCATTATTGGGGAAAGCCATA
TGTCTTTGACCGCTCTCCCCAAACACCCTCAGGAGCAGGTTTACCACGCCTGTGCCATGCAGATC
GTCAAAGACGTCCTTGTGGTTACAATGGCACAATCTTCGCTTATGGACAGACATCCTCAGGAAAAACGC
ATACCATGGAGGGGAAGCTGCACGACCCTCAGCTGATGGGCATCATTCCCGGATCGCTCGAGACATCTT
CAACCACATCTACTCCATGGATGAGAACCCTGAATTCCACATTAAGGTATCTTACTTCGAGATTTACCTG
GATAAGATCCGTGACCTTTTGGATGTGACCAAGACGAACCTGTCCGTGCATGAGGACAAAAACGGGTGC
CGTTTGTCAAGGGTGTACCGAACGCTTTGTGTCCAGCCAGAGGAGATTCTGGATGTGATCGATGAGGG
GAAGTCCAACCGTCACGTAGCTGTACCAACATGAACGAGCACAGTTCTCGGAGCCACAGCATCTTCCTC
ATCAACATCAAGCAGGAGAACGTAGAGACCGAGCAGAAGCTCAGCGGGAAGCTGTACCTCGTGGATCTGG
CCGGAAGCGAGAAGTCAAGACAGGGGAGAGGGAGCCGTTCTGGACGAGGCAAGAATATCAACAA
GTCGCTGTCCGCCCTGGGAACGTGATCTCTGCACTGGCAGAGGGCACAAAAGCTACGTGCCGTACCGC
GACAGCAAAATGACGAGGATTCTCCAGGACTCTCTGGGAGGAACTGCAGGACTACCATGTTCTATCTGCT
GCTCGCGTCCAGCTACAATGACGACAGACCAAGTCCACGCTCATGTTTGGACAGCGGGCAAGACCAT
CAAGAACACTGCCTCAGTGAATCTGGAGCTGACTGCTGAGCAGTGAAGAAGAAGTATGAGAAGGAGAAG
GAGAAGACCAAGGCCAGAAGGAGACAATTGCGAAGCTAGAGGCTGAGCTTAGCCGGTGGCGCAATGGAG
AGAATGTGCCTGAGACTGAGCGCTGGCTGGAGAGGACTCAGCTCTGGGAGCTGAGCTCTGCGAGGAGAC
CCCTGTGAATGACAACCTCATCCATTGTGGTACGCATCGCACCTGAGGAAAGGCAGAAATATGAGGAAGAG
ATCCGCCGTCTACAAGCAGCTTATGACAAGGATGATGAGATCAACCAGCAGAGCCAGCTCATTGAGA
AGCTGAAGCAGCAGATGCTGGACCAGGAAGAGCTGCTCGTGTCCACTCGGGGAGACAACGAGAAGGTCCA
GCGGGAGCTTAGCCACCTGCAGTCCGAGAACGATGCTGCGAAGGACGAGGTGAAGGAAGTCTGCAGGCC



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CTAGAGGAGCTGGCGGTCAACTACGACCAGAAGTCCCAGGAGGTGGAGGAGAAGGCCAGCAGAACCAGC
 TGCTGGTGGACGAGCTGTCCCAGAAAGTGGCCACCATGCTGTCCCTGGAGTCCGAGCTACAGCGGCTCCA
 GGAGGTCACTGGACACCAGCGAAAGCGGATCGCTGAGGTGCTGAATGGGCTGATGAGGGACCTGAGTGA
 TTCAGTGTATCGTGGGCAACGGCGAGATTAAGCTGCCGTGGAGATCAGTGGGGCCATCGAGGAGGAGT
 TCACGGTGGCCCGGCTCTACATCAGCAAGATCAAGTCGGAGGTGAAGTCCGTGGTAAAGCGATGTCGGCA
 GCTGGAGAACCTCCAGGTGGAGTGTATCGCAAGATGGAGGTGACCGGTAGGGAGCTGTATCTTGCCAA
 CTGCTCATCTCACAGCATGAGGCCAAGATCCGTTCACTACGGAGTACATGCAGACTGTGGAGTTGAAGA
 AACGGCACCTGGAAGAGTCTACGACTCCCTGAGCGATGAGCTTGCCAGGCTCCAGGCGCACGAACTGT
 ACACGAGGTAGCTCTGAAAGACAAGGAGCCAGACACACAGGACGCGGAGGAGGTGAAGAAGGCCCTGGAA
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 GAGCGACATGAGCAGTCCAAGCAGGACCTCAAGGGGCTGGAGGAGACAGTTGCCCGTGAAGTCCAGACCC
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 GACTTCGGGCTACGGCTGAGAGAGTTAAGGCCCTGGAGGGTGCAGTGAAGGAGGCCAAGGAGGGCGCTAT
 GAAGGACAAGCGTAGATACCAGCAGGAGGTGGACCGCATCAAAGAAGCCGTGCGGTACAAGAGCTCCGGC
 AAGCGGGGCCATTCTGCCAGATCGCTAAGCCTGTGAGGCTGGCCACTATCCTGCCTCCTACCCACCA
 ACCCCTACGGCACCCGGAGCCCCGAGTGTATCAGCTACACCAACAACCTTCCAGAAGTACCAGAACT
 GCACCTGCAGGCTGCGCTAGCTCCACTCAGATATGACTTTGCCAGCAGCGGAGCCACATCTGTTGCC
 CCCTTGGCTTCTACCAGAAGGCCAACATGGACAATGAAATGCCACAGATATCAACGACAACAGGAGTG
 ACCTGCCGTGTGGCTATGAGGCTGAGGACCAGGCCAAGCTTTCCCTCTCCACCAAGAGACAGCAGCCAG
 C

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR211477 protein sequence
 Red=Cloning site Green=Tags(s)

MAETNNECSIKVLCRFRPLNQAEILRGDKFIPIFQDDSVIIGGKPYVDFRVPNTTQEQVYHACAMQI
 VKDVLAGYNGTIFAYGQTSSGKTHMEGKLHDPQLMGIIPRIARDIFNHIYSMDENLEFHIKVSYFEIYL
 DKIRDLLDVTKTNLVHEDKNRVPFVKGCTERFVSSPEEILDVIDEGKSNRHVAVTNMNEHSSRSHSIFL
 INIKQENVETEQLSGKLYLVDLAGSEKVSKTGAEGAVLDEAKNINKSLSALGNVISALAEGTKSYVPYR
 DSKMTRILQDSLGGNCRITMFICCSPPSYNDAETKSTLMFGQRAKTIKNTASVNLLETAEQWKKKYEKEK
 EKTKAQKETIAKLEAELSRWRNGENVPE TERLAGEDSALGAELCEETPVNDNSSIVVRIAPEERQKYEEE
 IRRLYKQLDDKDDEINQQSQLIEKLNQMLDQEELLVSTRGDNEKQREL SHLQSENDAAKDEVKEVLQA
 LEELAVNYDQKSQEVEEKSQQNQLLVDEL SQKVATMLSLESELQRLQEVSGHQRKRIAEVNLNGLMRDLSE
 FSVIVNGEIKLPVEISGAIEEFTVARLYISKIKSEVKS VVKRCRQLENLQVECHRKMEVTGRELSSCQ
 LLISQHEAKIRSLTEYMQTVELKKRHLEESYDSL SDELARLQAHETVHEVALKDKEPDTQDAEEVKKALE
 LQMENHREAHHRQLARLDEINEKQKTIDELKDLNQLQLELEKLQADYERLKNEENEKSAKLQELTFLY
 ERHEQSKQDLKGLEETVARELQTLHNLRLKLVQDVVTRVKKSAEMEPEDSGGIHSQKQKISFLENNLEQL
 TKVHKQLVRDNADLRCEL PKLEKRLRATAERVKALEGALKEAEGAMKDKRRYQQEVDRIKEAVRYKSSG
 KRGHSAQIAKPVPRGHPASSPTNPYGTRESPECISYTNL FQNYQNLHLQAAPSSSTSDMYFASSGATSV
 PLASYQKANMDNGNATDINDNRDLPCGYEAEDQAKLFPLHQETAAS

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:


ACCN: NM_008447

ORF Size: 3084 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_008447.4](#)

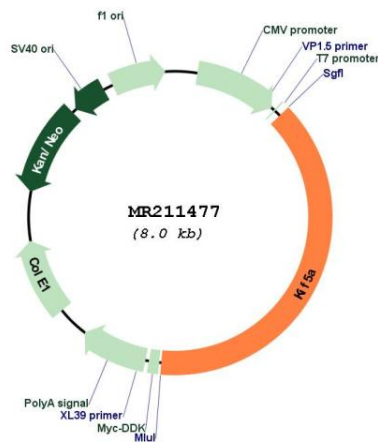
RefSeq Size: 4304 bp

RefSeq ORF: 3084 bp

Locus ID: 16572

UniProt ID: [P33175](#)
Cytogenetics: 10 74.5 cM
MW: 117 kDa
Gene Summary: Microtubule-dependent motor required for slow axonal transport of neurofilament proteins (NFH, NFM and NFL) (PubMed:12682084). Can induce formation of neurite-like membrane protrusions in non-neuronal cells in a ZFYVE27-dependent manner. The ZFYVE27-KIF5A complex contributes to the vesicular transport of VAPA, VAPB, SURF4, RAB11A, RAB11B and RTN3 proteins in neurons (PubMed:21976701). 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 MR211477