

Product datasheet for **RC218796**

Kinesin 5C (KIF5C) (NM_004522) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Kinesin 5C (KIF5C) (NM_004522) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Kinesin 5C
Synonyms:	CDCBM2; KINN; NKHC; NKHC-2; NKHC2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RC218796 representing NM_004522
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGCGGATCCAGCCGAATGCAGCATCAAAGTGATGTGCCGGTCCGGCCCTCAACGAAGCGGAGATCC
 TCCGCGGGGACAAATTCATCCCCAAATTTAAAGGCGATGAGACCGTGGTATCGGGCAAGGGAAGCCATA
 TGTCTTCGACAGAGTGCTACCTCCCAACACGACCCAAGAGCAGGTTTACAATGCATGTGCGAAGCAAAT
 GTCAAAGATGTCCTTGAAGGTTATAACGGGACGATTTTTGCGTATGGGCAGACTTCATCAGGAAAAACCC
 ACACCATGGAGGGGAAGCTGCATGACCCCCAGCTCATGGGGATCATCCCACGAATTGCCATGATATCTT
 TGACCATATCTACTCCATGGATGAGAACCTGGAGTTTACATAAAGGTTTCTATTTTGAGATCTACTTG
 GACAAAATAAGGGACTTACTTGATGTATCCAAGACCAACTGGCTGTTTCATGAAGATAAAAAACAGAGTCC
 CGTATGTAAGGGGTGCACTGAGCGTTTGTGTCGAGCCCTGAGGAAGTCATGGATGTAATAGATGAAGG
 CAAAGCAAACCGACACGTGGCTGTGACAAACATGAATGAACACAGCTCTAGAAGTCACAGTATCTTCTCTG
 ATAAATATTAAACAAGAGAATGTAGAGACTGAAAAAACTCAGTGGGAACTTTATTTGGTTGATTTGG
 CTGGGAGCGAAAAGGTCAGCAAACTGGTGCCGAGGGAGCTGTTCTTGACGAAGCTAAAAATATCAATAA
 GTCTTTGTCTGCTCTTGGAAATGTGATCTCTGCTTTGGCAGAAGGGACAAAAACACATGTGCCATACCGG
 GACAGCAAGATGACTCGGATTCTTCAGGACTCTTTGGGTGGGAACTGCAGAACCCACATCGTCATTTGCT
 GTTCTCCTTCTGTCTTCAATGAGGCTGAGACCAAGTCCACACTGATGTTCCGGACAGAGAGCTAAGACCAT
 CAAGAATACAGTCTCTGTGAACCTAGAAGTACAGCAGAGAAGATGGAAGAAGAAATGAAAAAGAGAAA
 GAGAAAAACAAGACTTTGAAGAATGTTATCCAGCATCTGGAGATGGAGCTAACAGGTGGAGGAATGGAG
 AAGCTGTGCCCTGAGGATGAACAGATCAGTGCCAAGGACCAGAAGAACCTGGAGCCTGTGATAACACCCC
 CATCATAGACAATATTGCTCCTGTTGTTGCTGGCATCTCTACAGAGGAGAAAGAGAAGTACGATGAGGAG
 ATCTCCAGTCTCTACAGCAACTGGATGACAAGGATGATGAAATTAACCAGCAGAGCCAGCTGGTGAAA
 AGCTGAAGCAACAGATGTTGGATCAGGATGAGCTTTTAGCTTCCACAAGAAGAGACTATGAGAAGATACA
 GGAGGAGCTGACACGCTCCAGATTGAAAATGAGGCAGCCAAGGATGAGGTGAAAGAAGTTCTCCAGGCC
 CTGGAGGAGCTGGCTGTCAATTATGACCAGAAATCACAGGAAGTGGAGGATAAGACCCGGGCCAATGAGC
 AGCTGACAGACGAGCTGGCCAGAAAACGACTACATTGACAACCACACAGAGAGAGCTGAGCCAGCTACA
 AGAGCTTAGCAACCACCAGAAGAAAAGGGCAACTGAGATCCTGAATTTGCTGTTGAAAGATCTGGGGGAG
 ATAGGTGGAATATTGGCACCAATGATGTGAAAACCTTTGGCAGATGTGAATGGAGTCATTGAGGAGGAGT
 TTACCATGGCCCCCTGTACATCAGCAAGATGAAGTCAGAGGTCAAGTCCCTGGTGAACCCGAGCAAACA
 GCTCGAGAGCGCCAGATGGACTCCAACAGGAAGATGAATGCCAGCGAGCGGGAGCTGGCAGCCTGCCAG
 CTGCTCATCTCCCAGCACGAAGCCAAGATCAAGTCTCTGACAGACTACATGCAGAACATGGAACAGAAGA
 GGAGGCAGCTAGAAGAGTCCCAGGACTCGCTCAGCGAAGAGCTGGCAAAGCTCCGAGCCCAGGAAAAAT
 GCACGAAGTCAGTTCAGGATAAAGGAGAAGGAACATCTGACGCGGTTGCAGGATGCTGAAGAAATGAAG
 AAGGCGCTGGAGCAGCAGATGGAGAGCCACCGGAAGCTCACCAGAAGCAGCTGTCCAGACTCCGAGACG
 AAATTGAGGAGAAGCAGAAAATCATTGATGAGATTCGGGATTTGAATCAGAAAACGCAACTGGAACAGGA
 GAAGCTTAGTTCTGATTATAACAAGCTGAAAATAGAGGACCAAGAGAGAGAAAATGAAGTGGAAAAGCTC
 TTATTGCTCAACGATAAAAGGGAACAAGCCAGAGAAGACCTCAAAGGGCTGGAGGAGACAGTGTCTAGAG
 AATTGCAGACACTGCACAACCTTCGAAAACCTTTGTCCAGGATCTGACCACCCGAGTTAAAAAAGTGT
 GGAGTTGGACAACGATGATGGAGGGGCGAGTGTGCCAGAAGCAGAAAATTTCTTCTTGGAGAATAAC
 CTGGAGCAGCTCACCAAAGTTCACAAGCAGCTGGTCCGGGACAACGCAGACCTGCGCTGTGAACTGCCCA
 AGCTGGAGAAGCGGCTGCGTGCCACGGCGGAGCGCGTCAAGGCTCTGGAGAGCGCGTGAAGGAGGCCAA
 GGAGAACGCCATGCGGGACCGTAAGCGCTACCAGCAGGAGGTGGATCGTATCAAGGAGGCCGTGCGGGCC
 AAGAACATGGCCAGAAGGGCCCATTCAGCCAGATCGCCAAGCCCATCCGCCCGGACACTACCCGGCCT
 CATCTCCAACGGCCGTCCATGCCATTGAGGGGGAGGAGCAGCTCTTCAAATTCACTCACTACCAGAA
 A

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC218796 representing NM_004522
 Red=Cloning site Green=Tags(s)

MADPAECSIKVMCRFRPLNEAEILRGDKFIPKFKGDETVVIGQGKPYVFDRLVPPNTTQEYVYNACAKQI
 VKDVLLEGYNGTIFAYGQTSSGKTHMEGKLHDPQLMGIIPRIAHDFDHIYSMDENLEFHIKVSYFEIYL
 DKIRDLLDVSKTNLAVHEDKNRVPYVKGCTERFVSSPEEVMVDIDEKANRHVAVTMNEHSSRSHSIFL
 INIKQENVETEKKLSGKLYLVDLAGESEKVSKTGAEGAVLDEAKNINKLSALGNVISALAEGTKTHVPYR
 DSKMTRILQDSLGGNCRITIVICCSPSVFNEAETKSTLMFGQRAKTIKNTVSVNLELTAEWKKKYEK
 EKNKTLKNIQHLEMELNRWRNGEAVPEDEQISAKDQKNLEPCDNTPIIDNIAPVVAGISTEEKEKYDEE
 ISSLYRQLDDKDEINQSSQLAEKQKQMLDQDELLASTRRDYEKIQEELTRLQIENEAAKDEVKEVLQA
 LEELAVNYDQKSQEVEDKTRANEQLTDELAQKTTTTLTTTQRELSQLQELSNHQKRATEILNLLKDLGE
 IGGIIGTNDVKTADVNGVIEEEFTMARLYISKMKSEVKS LVNRSKQLESAQMDSNRKMNASERELAACQ
 LLSIQHEAKIKSLTDYMQNMEQRRRQLEESQDSLSEELAKLRAQEKMEVSVFQDKEKEHLTRLQDAEEMK
 KALEQQMESHREAHQKQLSRLRDEIEEKQKIIDEIRDNLQKQLQEQEKLSSDYNKLIKIEDQEREMKLEKL
 LLLNDKREQAREDLKGLEETVSRELQTLHNLRLKLFVQDLTRVKKSVELDNDGGGSAQAQKQKISFLENN
 LEQLTKVHKQLVRDNADLRCELPKLEKRLRATAERVKALEKAKENAMRDRKRYQQEVDRIKEAVRA
 KNMARRAHSQAIAKPIRPGHYPPASSPTAVHAIRGGGGSSSNSTHYQK

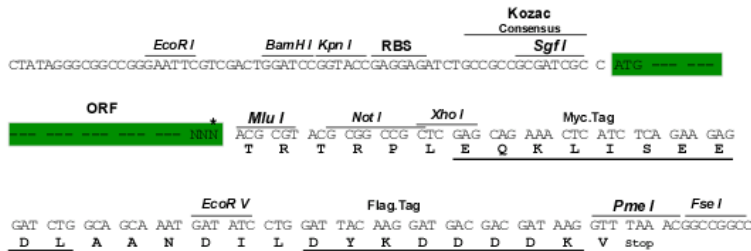
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8021_a07.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



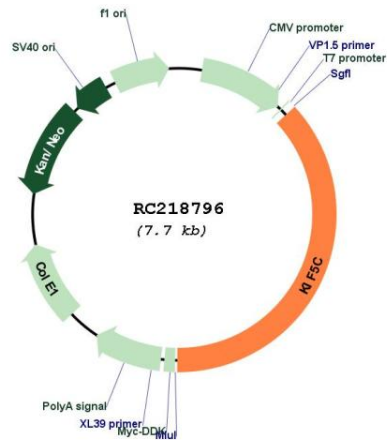
* The last codon before the Stop codon of the ORF

ACCN: NM_004522

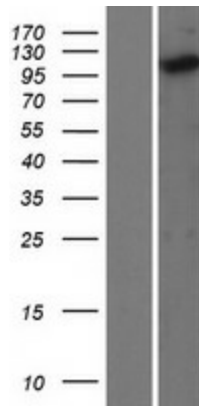
ORF Size: 2871 bp

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:	<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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_004522.3
RefSeq Size:	6927 bp
RefSeq ORF:	2874 bp
Locus ID:	3800
UniProt ID:	O60282
Cytogenetics:	2q23.1-q23.2
Domains:	kinesin
Protein Families:	Druggable Genome
MW:	109.3 kDa
Gene Summary:	The protein encoded by this gene is a kinesin heavy chain subunit involved in the transport of cargo within the central nervous system. The encoded protein, which acts as a tetramer by associating with another heavy chain and two light chains, interacts with protein kinase CK2. Mutations in this gene have been associated with complex cortical dysplasia with other brain malformations-2. Two transcript variants, one protein-coding and the other non-protein coding, have been found for this gene. [provided by RefSeq, Jul 2015]

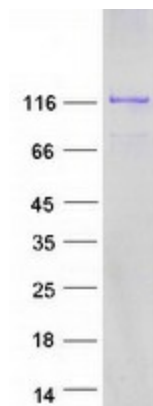
Product images:



Circular map for RC218796



Western blot validation of overexpression lysate (Cat# [LY417922]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC218796 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified KIF5C protein (Cat# [TP318796]). The protein was produced from HEK293T cells transfected with KIF5C cDNA clone (Cat# RC218796) using MegaTran 2.0 (Cat# [TT210002]).