

Product datasheet for **RC220210**

KLC1 (NM_182923) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	KLC1 (NM_182923) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	KLC1
Synonyms:	KLC; KNS2; KNS2A
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RC220210 representing NM_182923
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGTATGACAACATGTCCACAATGGTGTACATAAAGGAAGACAAGTTGGAGAAGCTTACACAGGATGAAA
 TTATTTCTAAGACAAAGCAAGTAATTCAGGGGCTGGAAGCTTTGAAGAATGAGCACAATCCATTTTACA
 AAGTTTGCTGGAGACACTGAAGTGGTGAAGAAAGATGATGAAAGTAATTTGGTGGAGGAGAAATCAAAC
 ATGATCCGGAAGTCACTGGAGATGTTGGAGCTCGGCCTGAGTGAGGCACAGGTTATGATGGCTTTGTCAA
 ATCACCTGAATGCTGTGGAGTCCGAGAAGCAGAACTGCGTGCGCAGGTTCTGTCGTCTGTGCCAGGAGAA
 TCAGTGGTACGGGATGAACTGGCCAACACGCAGCAGAACTGCAGAAGAGTGAGCAGTCTGTGGCTCAA
 CTGGAGGAGGAGAAGAAGCATCTGGAGTTTATGAATCAGCTAAAAAATATGATGACGACATTTCCCCAT
 CCGAGGACAAAGACTGATTCTACCAAGAGCCTCTGGATGACCTTTTCCCAATGATGAAGACGACCC
 AGGGCAAGGAATCCAGCAGCAGCACAGCAGTGCAGCCGCGGCTGCCAGCAGGGCGGCTACGAGATCCCC
 GCGCGGCTGCGGACGCTCCACAACCTGGTATCCAGTACGCCCTCGCAGGGGCGCTACGAGGTAGCTGTGC
 CCCTCTGCAAGCAGGCCCTGGAGGACCTGGAGAAGACTTCAGGACACGACCACCCGGACGTGGCCACCAT
 GCTCAACATCCTGGCCTTGGTGTACAGGGATCAGAATAAATACAAAGATGCAGCTAACCTACTGAATGAT
 GCCTTGGCTATTCGTGAGAAAACTTTGGGCAAAGATCATCCTGCGGTGGCGGCGACTTTGAATAACCTTG
 CAGTCTTTATGGTAAAAGAGGGGAAGTACAAAGAAGCAGAGCCGTTGTGTAAAAGAGCTCTGAAATCCG
 AGAAAAGGTTTTGGGGAAGGATCACCCGATGTTGCCAAGCAGTTAAATAACTTGGCCTTACTGTGCCAG
 AACCAGGGCAAGTATGAAGAAGTAGAATATTATTCAAAGAGCCCTCGAGATCTACCAGACAAAAGTGG
 GACCTGATGACCCCAACGTGGCTAAGAGAAAAATAACCTGGCATCCTGCTATTTGAAACAAGGAAAGTT
 CAAGCAAGCAGAAAACACTGTACAAAGAGATTCTCACTCGTGCACATGAAAGGGAGTTTGGTTCTGTAGAT
 GATGAAAATAAACCCATCTGGATGCATGCTGAAGAAAGAGAAGAATGCAAAGGAAAGCAAAGGATGGGA
 CATCTTTTGGAGAGTATGGCGGCTGGTACAAAGCCTGCAAAGTTGATAGTCCAAGTGTACAACCACTCT
 AAAAAACCTTGGGGCACTTTACAGAGCTCAAGGCAAATTTGAAGCTGCAGAAACGTTAGAAGAAGCTGCT
 ATGAGGTCTCGTAAACAGGGTCTTGACAATGTTCAAAACAGAGGGTGGCAGAAGTGTCAATGACCCTG
 AGAACATGGAGAAGCGCAGGAGCCGTGAGAGCCTCAACGTGGACGTGGTCAAGTACGAGAGTGGCCCTGA
 CGGAGGGGAGGAAGTGAATGAGCGTAGAGTGAACGGGGCGTCTCTGGCCGAGCCTCTTTTGTGGA
 AACGACAGCAGCAGCAGTGGCCTGGAAGACGCCACCGC

ACGCGTACGCGGCGGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC220210 representing NM_182923
 Red=Cloning site Green=Tags(s)

MYDNMSTMVYIKEDKLEKLTQDEIISKTKQVIQGLEALKNEHNSILQSLLETCLKLKKDDDESNLVEEKS
 MIRKSLEMLELGLSEAQVMMALSNHLNAVESEKQLRAQVRRRCQENQWLRDELANTQQLKQSEQSVAQ
 LEEEEKHLEFMNQLKKYDDDISPSEDKDSTKEPLDDLFPNDEDDPGQGIQQQHSSAAAAAQGGYIEP
 ARLRTLHNLVIQYASQGRYEVAVPLCKQALDLEKTSGHDPDVATMLNIALVYRDQNKYKDAANLLND
 ALAIREKTLGKDHPAVAATLNNLAVLYGKRKYKEAEPLCKRALEIREKVLGKDHPDPAKQLNNLALLCQ
 NQGYEEVEYYYQRALEIYQTKLGPDDPNVAKTKNNLASCYLKQKFKQAETLYKEILTRAHEREFGSVD
 DENKPIWMHAEEERECKGKQKDGTSFGEYGGWYKACKVDSPTVTTTLKNL GALYRRQGKFEAAETLEEA
 MRSRKQGLDNVHKQ RVAEVLNDPENMEKRRESLNVDVVKYESGPDGGEEVSMSVEWNGVSGRASFCG
 KRQQQWPGRHR

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk8069_h05.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_182923

ORF Size: 1814 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_182923.3](#), [NP_891553.2](#)

RefSeq Size: 2548 bp

RefSeq ORF: 1722 bp

Locus ID: 3831

UniProt ID: [Q07866](#)

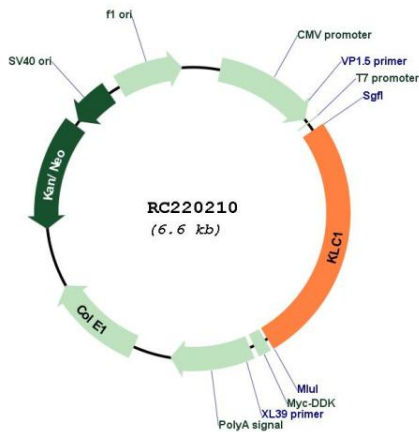
Cytogenetics: 14q32.33

Protein Families: Druggable Genome

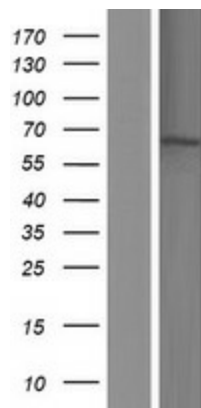
MW: 65.1 kDa

Gene Summary: Conventional kinesin is a tetrameric molecule composed of two heavy chains and two light chains, and transports various cargos along microtubules toward their plus ends. The heavy chains provide the motor activity, while the light chains bind to various cargos. This gene encodes a member of the kinesin light chain family. It associates with kinesin heavy chain through an N-terminal domain, and six tetratricopeptide repeat (TPR) motifs are thought to be involved in binding of cargos such as vesicles, mitochondria, and the Golgi complex. Thus, kinesin light chains function as adapter molecules and not motors per se. Although previously named "kinesin 2", this gene is not a member of the kinesin-2 / kinesin heavy chain subfamily of kinesin motor proteins. Extensive alternative splicing produces isoforms with different C-termini that are proposed to bind to different cargos; however, the full-length nature and/or biological validity of most of these variants have not been determined. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RC220210



Western blot validation of overexpression lysate (Cat# [LY405311]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC220210 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).