

## Product datasheet for **RC225936**

### **KLC2 (NM\_001134774) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	KLC2 (NM_001134774) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	KLC2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC225936 representing NM\_001134774  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGCCATGATGGTGTTCCTCCGGGAGGAGAAGCTGAGCCAGGATGAGATCGTGTCTGGCCACCAAGGCTG  
 TCATCCAGGGACTGGAGACTCTGCGTGGGGAGCATCGTGCCCTGCTGGCTCCTCTGGTTGCACCTGAGGC  
 CGGCGAAGCCGAGCCTGGCTCGCAGGAGCGCTGCATCCTCCTGCGTCGCTCCCTGGAAGCCATTGAGCTT  
 GGGCTGGGGGAGGCCAGGAGGAGAAGGGGGACGTCCCAAAGACACACTGGATGACCTGTTCCCAATG  
 AGGATGAGCAGAGCCCAGCCCCTAGCCCAGGAGGAGGGGATGTGTCTGGTCAGCATGGGGCTACGAGAT  
 CCCGGCCCGGCTCCGCACCCTGCACAACCTGGTATCCAATACGCCTCACAGGGCCGCTACGAGGTAGCT  
 GTGCCACTCTGCAAGCAGGCACTCGAAGACCTGGAGAAGCGTCAGGCCACGACCACCCTGACGTTGCCA  
 CCATGCTGAACATCCTGGCACTGGTCTATCGGGATCAGAACAAAGTACAAGGAGGCTGCCACCTGCTCAA  
 TGATGCTCTGGCCATCCGGGAGAAAACACTGGGCAAGGACCACCCAGCCGTGGCTGCGACACTAAACAAC  
 CTGGCAGTCTGTATGGCAAGAGGGGCAAGTACAAGGAGGCTGAGCCATTGTGCAAGCGGGCACTGGAGA  
 TCCGGGAGAAGGTCTGGCAAGTTTACCCAGATGTGGCCAAGCAGCTCAGCAACCTGGCCCTGCTGTG  
 CCAGAACCAGGGCAAAGCTGAGGAGGTGGAATATTACTATCGGCGGGCACTGGAGATCTATGCTACACGC  
 CTCGGGCCCGATGACCCCAATGTGGCCAAGACCAAGAACAACCTGGCTTCTGCTACCTGAAGCAGGGCA  
 AGTACCAGGATGCGGAGACCTTGTACAAGGAGATCCTCACCCGCGCTCATGAGAAAGAGTTTGGCTCTGT  
 CAATGGGGACAACAAGCCATCTGGATGCACGCAGAGGAGCGGGAGGAAAGCAAGGATAAGCGCCGGGAC  
 AGCGCCCCCTATGGGGAATACGGCAGCTGGTACAAGCCCTGTAAGTAGACAGCCCCACAGTCAACACCA  
 CCCTGCGCAGCTTGGGGGCCCTATACCGCGCCAGGGCAAGCTGGAAGCCGCGCACACACTAGAGGACTG  
 TGCCAGCCGTAACCGCAAGCAGGGTTTGGACCCCGCAAGCCAGACCAAGGTGGTAGAACTGCTGAAAGAT  
 GGCAGTGGCAGGCGGGAGACCGCCGACGAGCCGAGACATGGCTGGGGGTGCCGGCCCTCGGTCTGAGT  
 CTGACCTCGAGGACGTGGGACCTACAGCTGAGTGAATGGGGATGGCAGTGGCTCCTTGAGGCGCAGCGG  
 TTCCTTTGGAAACTCCGGGATGCCCTGAGGCGCAGCAGTGAAGTAAAGAAGCTGCAGGGGGGC  
 ACCCCCCAGGAGCCCCCTAACCCAGGATGAAGCGGGCCAGTTCCTCAACTTCTCAACAAGAGCGTGG  
 AAGAGCCGACCCAGCCTGGAGGCACAGGTCTCTGACAGCCGCACTCTCAGCTCCAGCTCCATGGACCT  
 CTCCCAGCAAGCTCCCTGGTGGGC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC225936 representing NM\_001134774  
 Red=Cloning site Green=Tags(s)

MAMMVFPREEKLSQDEIVLGTKAVIQGLETLRGEHRALLAPLVAPEAGEAEPGSQERCILLRRSLEAIEL  
 GLGEAQEEKGDVPKDTLDDLFPNEDEQSPAPSPGGGDVSGQHGGYEIPARLRTLHNLVIQYASQGRYEVA  
 VPLCKQALDLEKTSGHDPDVATMLNILALVYRDQNKYKEAAHLLNDALAIREKTLGKDHPAVAATLNN  
 LAVLYGKRKYKEAEPLCKRALEIREKVLGKFHPDVAKQLSNLALLCQNQGKAEEVEYYRRALEIYATR  
 LGPDDPNVAKTKNNLASCYLKQGYQDAETLYKEILTRAHEKEFGSVNGDNKPIWMHAEREESKDKRRD  
 SAPYGEYGSWYKACKVDSPTVNTTLRSLGALYRRQGKLEAAHTLEDCASRNKQGLDPASQTKVVELLKD  
 GSGRRGDRSSRD MAGGAPRSESDLEDVGPTAEWNGDGSGLRRSRSGSFGKLRDALRRSSEMLVKKLQGG  
 TPQEPNPRMKRASSLNFLNKSVEEPTQPGGTGLSDSRTLSSSSMDLSRRSSLVG

**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk8066\\_f02.zip](https://cdn.origene.com/chromatograms/mk8066_f02.zip)

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**


**ACCN:** NM\_001134774

**ORF Size:** 1635 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\\_001134774.1](#), [NP\\_001128246.1](#)

**RefSeq ORF:** 1638 bp

**Locus ID:** 64837

**UniProt ID:** [Q9H0B6](#)

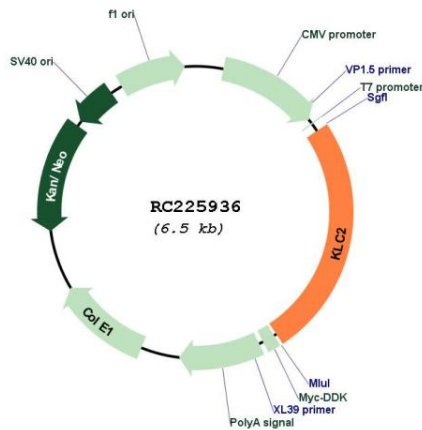
**Cytogenetics:** 11q13.2

**Protein Families:** Druggable Genome

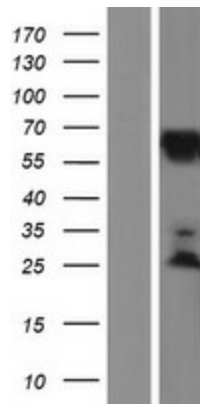
**MW:** 59.9 kDa

**Gene Summary:** The protein encoded by this gene is a light chain of kinesin, a molecular motor responsible for moving vesicles and organelles along microtubules. Defects in this gene are a cause of spastic paraplegia, optic atrophy, and neuropathy (SPOAN) syndrome. [provided by RefSeq, Mar 2016]

**Product images:**



Circular map for RC225936



Western blot validation of overexpression lysate (Cat# [LY427490]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC225936 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).