

Product datasheet for **RC226035**

KLC2 (NM_001134776) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	KLC2 (NM_001134776) 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:

>RC226035 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCCATGATGGTGTTCCTCCGCGGAGGAGAAGCTGAGCCAGGATGAGATCGTGTCTGGCCACCAAGGCTG
 TCATCCAGGGACTGGAGACTCTGCGTGGGGAGCATCGTGCCCTGCTGGCTCCTCTGGTTGCACCTGAGGC
 CGGCGAAGCCGAGCCTGGCTCGCAGGAGCGCTGCATCCTCCTGCGTCGCTCCCTGGAAGCCATTGAGCTT
 GGGCTGGGGGAGGCCAGGTGATCTTGGCATTGTGAGCCACCTGGGGGTGTAGAATCAGAGAAGCAGA
 AGCTGCGGGCGCAGGTGCGGCGTCTGGTGCAGGAGAACCAGTGGCTGCGTGAGGAGCTGGCGGGACACA
 GCAGAAGTGCAGCGCAGTGAGCAGGCCGTGGCCAGCTCGAGGAGGAGAAGCAGCACTTGTCTTTCATG
 AGCCAGATCCGCAAGTTGGATGAAGACGCCCTCCCTAACGAGGAGAAGGGGGACGTCCCCAAGACACAC
 TGGATGACCTGTTCCCAATGAGGATGAGCAGAGCCCAGCCCCTAGCCCAGGAGGAGGGGATGTGTCTGG
 TCAGCATGGGGGCTACGAGATCCCGGCCGGCTCCGCACCTGCACAACCTGGTGTCCAATACGCCCTCA
 CAGGGCCCTACGAGGTAGCTGTGCCACTCTGCAAGCAGGCACTCGAAGACCTGGAGAAGACGTCAGGCC
 ACGACCACCTGACGTTGCCACCATGCTGAACATCCTGGCACTGGTCTATCGGGATCAGAACAAAGTACAA
 GGAGGCTGCCACCTGCTCAATGATGCTCTGGCCATCCGGGAGAAAACACTGGGCAAGGACCACCCAGCC
 GTGGCTGCGACACTAAACAACCTGGCAGTCTGTATGGCAAGAGGGGCAAGTACAAGGAGGCTGAGCCAT
 TGTGCAAGCGGGCACTGGAGATCCGGGAGAAGTCTGGGCAAGTTTCACCCAGATGTGGCAAGCAGCT
 CAGCAACCTGGCCCTGCTGTGCCAGAACCAGGGCAAAGCTGAGGAGGTGGAATATTACTATCGGCGGGCA
 CTGGAGATCTATGCTACACGCCCTCGGGCCGATGACCCCAATGTGGCCAAGACCAAGAACAACCTGGCTT
 CCTGCTACCTGAAGCAGGGCAAGTACCAGGATGCGGAGACCTTGTACAAGGAGATCCTCACCCGCGCTCA
 TGAGAAAAGAGTTTGGCTCTGTCAATGGGACAACAAGCCCATCTGGATGCACGCAGAGGAGCGGGAGGAA
 AGCAAGGATAAGCGCCGGACAGCGCCCTATGGGGAATACGGCAGCTGGTACAAGGCCTGTAAGTAG
 ACAGCCCCACAGTCAACACCACCCTGCGCAGCTTGGGGCCCTATACCGCGCCAGGGCAAGCTGGAAGC
 CGCGCACACACTAGAGGACTGTGCCAGCCGTAACCGCAAGCAGGGTTTGGACCCGCAAGCCAGACCAAG
 GTGGTAGAACTGCTGAAAGATGGCAGTGGCAGGCGGGGAGACCGCCGAGCAGCCAGACATGGCTGGGG
 GTGCCGGGCTCGGTCTGAGTCTGACCTCGAGGACGTGGGACCTACAGCTGAGTGAATGGGGATGGCAG
 TGGCTCCTTGAAGCGCAGCGTTCTTTGGAAACTCCGGGATGCCCTGAGGCGCAGCAGTGAATGCTG
 GTAAAGAAGTGCAGGGGGCACCCCCAGGAGCCCCCTAACCCAGGATGAAGCGGGCCAGTTCCTCTCA
 ACTTCTCAACAAGAGCGTGAAGAGCCGACCCAGCCTGGAGGCACAGGTCTCTGACAGCCGCACTCT
 CAGCTCCAGCTCCATGGACCTCTCCCGCAAGCTCCCTGGTGGG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC226035 protein sequence
 Red=Cloning site Green=Tags(s)

MAMMVFPREEKLSQDEIVLGTKAVIQGLETLRGEHRALLAPLVAPEAGEAEPGSQERICLLRRSLEAIEL
 GLGEAQVILALSSHLGAVESEKQLRAQVRRVLVQENQWLREELAGTQQKLQRSEQAVAQLEEEKQHLLFM
 SQIRKLDDEASPNEEKGDVPKDLDLFPNEDEQSPAPSPGGDVSQHGQYIEIPARLRTLHNLVIQYAS
 QGRYEVAVPLCKQALDLEKTSQHDHPDVATMLNILALVYRDQNKYKEAAHLLNDALAIREKTLGKDHPA
 VAATLNNLAVLYGKRKYKEAEPLCKRALEIREKVLGKFPDPAKQLSNLALLCQNQGAEEVEYYRRA
 LEIYATRLGPDDPNVAKTKNNLASCYLKQGYQDAETLYKEILTRAHEKEFGSVNGDNKPIWMHAEEERE
 SKDKRRDSAPYGEYGSWYKACKVDSPTVNTTLRSLGALYRRQKLEAAHTLEDCASRNKQGLDPASQTK
 VVELLKDGSGRRDRRSRDMAGGAPRSESDLEDVGPTEWNGDGSGLRRSGSFGKLRDALRRSSEML
 VKKLQGGTPQEPNPRMKRASSLNFLNKSVEEPTQPGGTGLSDSRTLSSSSMDLRRSSSLVG

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6158_c07.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001134776

ORF Size: 1866 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_001134776.2](#)

RefSeq Size: 2972 bp

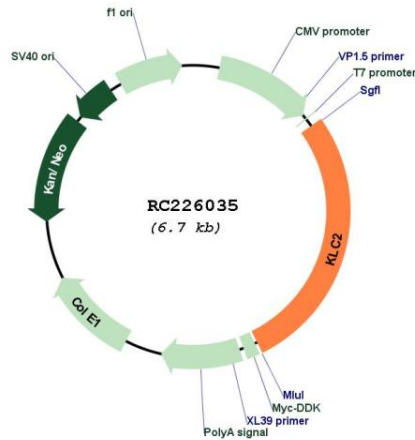
RefSeq ORF: 1869 bp

Locus ID: 64837

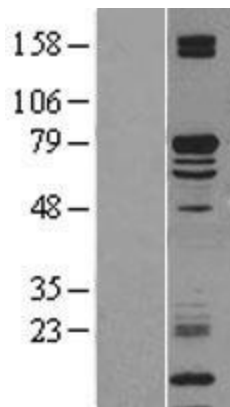
UniProt ID: [Q9H0B6](#)

Cytogenetics: 11q13.2
Protein Families: Druggable Genome
MW: 68.9 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]

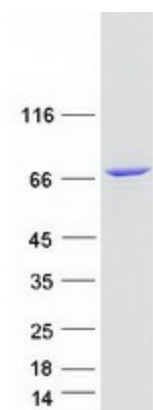
Product images:



Circular map for RC226035



Western blot validation of overexpression lysate (Cat# [LY427492]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC226035 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified KLC2 protein (Cat# [TP326035]). The protein was produced from HEK293T cells transfected with KLC2 cDNA clone (Cat# RC226035) using MegaTran 2.0 (Cat# [TT210002]).