

Product datasheet for **RC209427**

KLC3 (NM_177417) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	KLC3 (NM_177417) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	KLC3
Synonyms:	KLC2; KLC2L; KLCt; KNS2B
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC209427 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGTCTGTGCAGGTAGCGGCTCCTGGAAGTGCAGGGCTGGGCCAGAGCGCTGAGCCCTGAGGAGCTGG
 TCGCGCAGACCGGCAAGTGGTCCAGGGCTGGAGGCGCTGCGGGCAGAGCACCATGGCCTGGCTGGGCA
 CCTGGCGGAGGCCCTGGCGGGACAGGGCCCGCAGCCGGCTTGGAGATGCTGGAGAAAAGCAGCAGGTG
 GTGAGCCACTCGCTGGAGGCCATCGAGCTGGGGCTGGGCGAGGCCAGGTGCTGCTGGCCCTGTCGGCAC
 ATGTGGGTGCACTGGAGGCAGAGAAGCAGCGGCTGCGCTCGCAGGCCCGCGGCTGGCCAGGAGAACGT
 GTGGCTGCGGGAGGAAGTGGAGGAGACGACGGCGGCTTCGGGCCAGCAGGAGTCCGTGGCCAGCTG
 GAGGAGGAGAAGCGCCACCTGGAGTTCCTGGGCGAGTGCACAGTACGACCCACCGCGGAGAGCCAGC
 AGTCTGAGTCCCCGCTCGCGGAGACAGCTGGCCTCCCTGTTCCCCAGCGAGGAGGAGGAGGAAAGG
 TCCTGAGGCCGAGGAGCAGCTGCTCAGCAGGGTGGCTATGAGATCCCTGCCCGCTTCGGACCCTG
 CATAACCTCGTGATCCAGTACCGGGGGCAGGGCCGCTATGAGGTGGCGGTGCCTCTGTGCCGCCAGGCC
 TGGAGGACCTGGAGCGCAGCTCGGGCCACTGCCACCCTGACGTGGCCACCATGCTCAACATCCTGGCGCT
 GGTGTACCGGGACAGAAACAGTACAAAGAAGCCACAGACCTTCTCCATGATGCCCTGCAGATCCGGGAG
 CAGACGCTGGGCCCTGAGCACCCCGGTTGGCCGCCACGCTCAACAACCTGGCTGTCTCTATGGGAAGC
 GTGGGCGTTACCGGGAGGCAGAGCCCTGTGCCAGCGCGCTTGGAGATCCGAGAGAAGTCTGGGTGC
 TGACCACCCAGATGTGGCCAAGCAGCTCAACAACCTGGCCCTGCTGTGCCAGAACCAGGGCAAGTTTGG
 GACGTGGAGCGGCACTATGCCCGGGCCCTGAGCATCTATGAGGCACTGGGCGGCCCATGACCCCAACG
 TGGCCAAGACCAAGAACAACCTGGCCTCAGCCTACCTGAAACAGAAACAAGTATCAACAAGCGGAAGAGCT
 GTACAAAGAAATCCTCCACAAGGAGGACCTACCGCCCTCTCGGTGCCCAACACAGGCACAGCTGGT
 GACGCAGAACAGGCCCTTCGCCGAGCAGCTCACTCTCCAAGATCCGTGAGTCTATCAGGCGAGGAAGTG
 AGAAGCTGGTCTCCCGGCTCCGAGGCGAGGCGGCGCAGGAGCAGCCGGAATGAAGAGAGCCATGCTCACT
 CAACACACTGAACGTGGATGCTCCAAGGCTCCTGGGACTCAGTTTCCCAGCTGGCACCTGGACAAGGCC
 CCTCGGACCCTCAGCGCCAGCACCCAGGACCTGAGCCCCAC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC209427 protein sequence
 Red=Cloning site Green=Tags(s)

MSVQVAAPGSAGLGPERSPEELVRQTRQVVQGLEALRAEHHGLAGHLAEALAGQPAAGLEMLEEKQV
 VSHSLEAIELGLGEAQVLLALSAHVGALAEKQRLRSQARRLAQENVWLRREELEETQRRLRASEESVAQL
 EEEKRHLEFLGQLRQYDPPAESQQSESPRRDSLASFPESEEEERKGPEAAGAAAQGGYEIPARLRTL
 HNLVIQYAGQGRYEVAVPLCRQALEDLERSGHPDVATMLNIALVYRDQNKYKEATDLLHLDALQIRE
 QTLGPEHPAVAATLNNLAVLYGKRGRYREAEPQCQRALEIREKVLGADHPDVAKLNNLALLCQNQKFE
 DVERHYARALSIYEALGGPHDPNVAKTKNNLASAYLKQNKYQAEELYKEILHKEDLPAPLGAPNTGTAG
 DAEQALRRSSSLKIRESIIRRGSEKLVSRLRGEAAGAAGMKRAMSLNTLNVDAPRAPGTQFPSWHLDKA
 PRTLSTASTQDLSPH

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6730_b10.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_177417

ORF Size: 1512 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_177417.3](#)

RefSeq Size: 1793 bp

RefSeq ORF: 1515 bp

Locus ID: 147700

UniProt ID: [Q6P597](#)

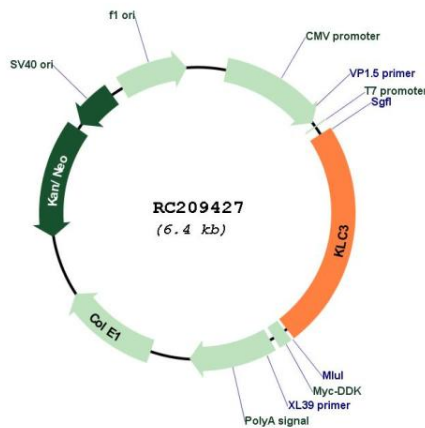
Cytogenetics: 19q13.32

Protein Families: Druggable Genome

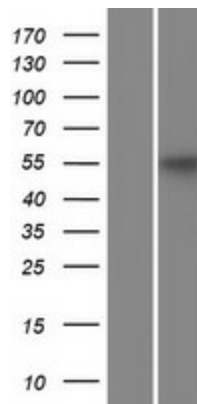
MW: 55.4 kDa

Gene Summary: This gene encodes a member of the kinesin light chain gene family. Kinesins are molecular motors involved in the transport of cargo along microtubules, and are composed of two kinesin heavy chain (KHC) and two kinesin light chain (KLC) molecules. KLCs are thought to typically be involved in binding cargo and regulating kinesin activity. In the rat, a protein similar to this gene product is expressed in post-meiotic spermatids, where it associates with structural components of sperm tails and mitochondria. [provided by RefSeq, Jul 2008]

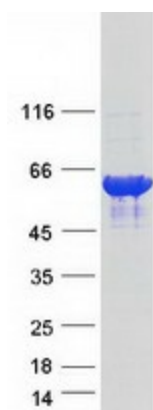
Product images:



Circular map for RC209427



Western blot validation of overexpression lysate (Cat# [LY406158]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC209427 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified KLC3 protein (Cat# [TP309427]). The protein was produced from HEK293T cells transfected with KLC3 cDNA clone (Cat# RC209427) using MegaTran 2.0 (Cat# [TT210002]).