

Product datasheet for **RC203891**

KIF12 (NM_138424) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	KIF12 (NM_138424) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	KIF12
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC203891 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGCAGAGACCTTCGCCTGGCTGTTGGACCGCTGCAGCACCTGGGTGCCCTGTACCCTTCGCGCT
 CTTATCTGGAGATCTACAATGAGCAGGTTCTGGGACTTGCCTGAGCCTGGGTCTCCCCGGCCCTCCCTGT
 TCGCTGGAACAAGACTCGGGCTTCTATGTGGAGCAGCTGCGGGTGGTGAATTTGGGAGTCTGGAGGCC
 CTGATGGAACCTTTTCAAACGGGTCTCAGCCGTCGAAGGAACTCAGCCCACACCTGAACCAGGCCTCCA
 GCCGAAGCCATGCCCTGCTCACCTTTACATCAGCCGTCAAACTGCCAGCAGATGCCTTCTGTGGACCC
 TGGGGAGCCCCCTGTTGGTGGGAAGCTGTGCTTTGTGGACCTGGCAGGCAGTGAAGGTAGCAGCCACG
 GGATCCCGTGGGAGCTGATGCTTGAGGCTAACAGCATCAACCGAAGCCTGCTGGCCCTGGGTCACTGCA
 TCTCCCTGCTGTGGACCCACAGCGGAAGCAGAGCCACATCCCTTCCGGGACAGCAAGCTACCAAGTT
 GCTGGCAGACTCACTGGGAGGGCGGGGTACCCTCATGGTGGCTGCGTGTCCCCCTCAGCCCAGTGC
 CTTCTGAGACTCTCAGCACCTGCGATATGCAAGCCGAGCTCAGCGGTCACCACCCGACCACAGGCC
 CCAAGTCTCTGTGGCAAAGCAGCCCCAGCGTTTGGAGACAGAGATGCTGCAGCTCCAGGAGGAGAACCG
 TCGCTGCAGTTCAGCTGGACCAAATGGACTGCAAGGCCTCAGGGCTCAGTGGAGCCCGGGTGGCTGG
 GCCCAGCGGAACCTGTACGGGATGTACAGGAGTTCATGCTAGAGAATGAGAGGCTCAGGAAAGAAAAGA
 GCCAGCTGCAGAAAGCCGAGACCTGGCCAGAATGAGCAGCGCATCCTGGCCAGCAGGTCCATGCACT
 AGAGAGGCGTCTCTCTGCTGCTACCATCACCAGCAGGTCCTGGCTGACCCACCGTGTCCCTGC
 TTGATGGCCCCAGCTCCCCCTGGCATGCACTGCCACCCTCTACTCTGCCCTGCTGCCACATCTGCC
 CACTGTGTCGAGTGGCCCTGGCCACTGGGCTGCCTGCCAGGGGAGCACCACCTGCCCCAGGTGTTGGA
 CCTGAGGCCTCAGGTGGCAGGCCCATCTGCCCGGCCCCACCTGGGCACCCCATGCAGCCCTGGC
 TCTGCCAAGTGCCAAGAGAGAGGAGTACAGTACTGGACTCAGACCCGAGTCTGGCAGAGATGTTGA
 CGGAGGAGGAGGTGTTACCTTCTGCACCTCCCCTGCTGTGAGGCCCCGAAAGACATCACCAGGGCTCAG
 AGGTGGGGCCGGGTTCCAAACCTGGCCAGAGACTGGAGGCCCTCAGAGACCAGATTGGCAGCTCCCTG
 CGAGCTGGCCGACCCAGCCACCCTGCAGTGGGGCGCACGGAGCCAGGCCAAGTCTCCCTCCCCAT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT
 ACAAGGATGACGACGATAAAGTTTAA

Protein Sequence:

>RC203891 protein sequence
 Red=Cloning site Green=Tags(s)

MQRTFAWLLDRVQHLGAPVTLRASYLEIYNEQVRDLLSLGSPRPLPVRWNKTRGFYVEQLRVVEFGSLEA
 LMELLQTGLSRRRNSAHTLNQASSRSHALLTYISRQTAQQMPSVDPGEPVGGKLCFVDLAGSEKVAAT
 GSRGELMLEANSINRSLALGHCSLLLDPQRKQSHIPFRDLSKTKLLADSLGGRGVTLMVACVSPSAQC
 LPETLSTLRYASRAQRVTTRPQAPKSPVAKQPQRLETEMLQLQEENRRLQFQLDQMDCKASGLSGARVAW
 AQRNLYGMLQEFMLENERLRKEKSQLQNSRDLAQNEQRILAQQVHALERRLLSACYHHQQGPGLTPPCPC
 LMAPAPPCHALPLYSCPCCHICPLCRVPLAHWACLPGEHHLPVLDPEASGGRPPSARPPPWAPPCSPG
 SAKCPRERSHSDWTQTRVLAEMLETEEVVPSAPPLPVRPPKTSPLRGGAGVPNLAQRLEALRDQIGSSL
 RRGRSQPPCSEGARSPGQVLPFH

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6540_g04.zip

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_138424

ORF Size: 1539 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_138424.1](#), [NP_612433.1](#)

RefSeq Size: 2024 bp

RefSeq ORF: 1542 bp

Locus ID: 113220

UniProt ID: [Q96FN5](#)

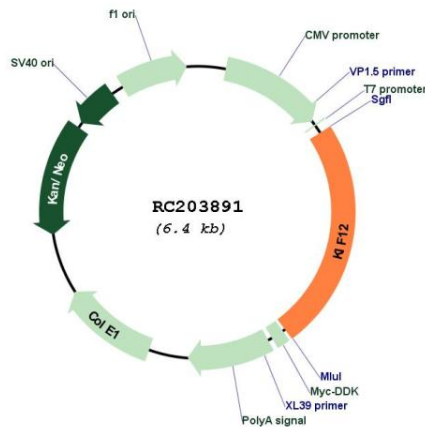
Cytogenetics: 9q32

Protein Families: Druggable Genome

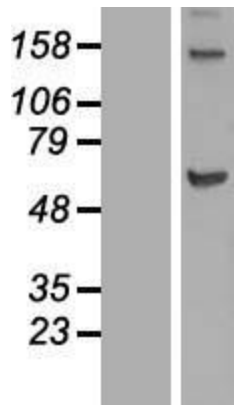
MW: 56.6 kDa

Gene Summary: This gene encodes a member of the kinesin superfamily of microtubule-associated molecular motors with functions related to the microtubule cytoskeleton. Members of this superfamily play important roles in intracellular transport and cell division. A similar protein in mouse functions in the beta cell antioxidant signaling cascade, acting as a scaffold for the transcription factor specificity protein 1 (Sp1). Mice that lack this gene exhibit beta cell oxidative stress resulting in hypoinsulinemic glucose intolerance. [provided by RefSeq, Jul 2016]

Product images:



Circular map for RC203891



Western blot validation of overexpression lysate (Cat# [LY408680]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC203891 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).