

Product datasheet for **RC200789**

MIS12 (NM_024039) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MIS12 (NM_024039) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MIS12
Synonyms:	2510025F08Rik; hMis12; KNTC2AP; MTW1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC200789 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTGTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGTCTGTGGATCCAATGACCTACGAGGCCAGTTCTTTGGCTTCAGCCACAAACGTGCATGCTTCGGA
 TCTACATTGCATTTCAAGACTACCTATTTGAAGTGATGCAGGCCGTTGAACAGGTTATTCTGAAGAAGCT
 GGATGGCATCCAGACTGTGACATTAGCCAGTGCAGATTCGCAAATGCACAGAGAAGTTTCTTTGCTTC
 ATGAAAGGACATTTTGATAACCTTTTAGCAAAATGGAGCAACTGTTTTGCAGCTGATTTTACGTATTC
 CCTCAACATCTTGCTTCTGAAGATAAATGTAAGGAGACACCTTATAGTGAGGAAGATTTTCAGCATCT
 CCAGAAAGAAATTGAACAGTTACAGGAGAAGTACAAGACTGAATTATGTACTAAGCAGGCCCTTCTTGCA
 GAATTAGAAGAGCAAAAAATTGTTCAAGCCAAACTCAAACAGACGTTGACTTTCTTTGATGAGCTTCATA
 ATGTTGGCAGAGATCATGGGACTAGTGATTTTAGGGAGAGTTTAGTATCCCTGGTTCAGAACTCCAGAAA
 ACTACAGAACATTAGAGACAATGTGAAAAGGAATCGAAACGACTGAAAAATATCT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:	>RC200789 protein sequence Red=Cloning site Green=Tags(s)
-------------------	--

MSVDPMTYEAQFFGFTPQTCMLRIYIAFDYLFQVEMQAVEQVILKKLDGIPDCDISPVQIRKCTEKFLCF
 MKGHFDNLFKMEQLFLQLILRIPSNILLPEDKCKETPYSEEDFQHLQKEIEQLQEKYKTELCTKQALLA
 ELEEQKIVQAKLKQTLTFFDELHNVGRDHGTSDFRESLVSLVQNSRKLQNIRDNVEKESKRLKIS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV


[View online »](#)

Chromatograms: https://cdn.origene.com/chromatograms/mk6388_b03.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_024039

ORF Size: 615 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.

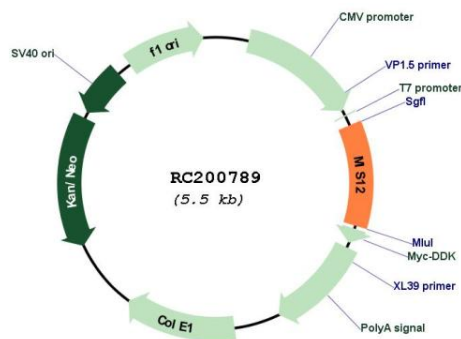
RefSeq: [NM_024039.2](#)

RefSeq Size: 2543 bp

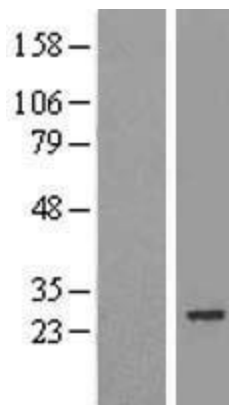
RefSeq ORF: 618 bp
 Locus ID: 79003
 UniProt ID: [Q9H081](#)
 Cytogenetics: 17p13.2
 MW: 24.1 kDa

Gene Summary: Part of the MIS12 complex which is required for normal chromosome alignment and segregation and for kinetochore formation during mitosis (PubMed:12515822, PubMed:15502821, PubMed:16585270). Essential for proper kinetochore microtubule attachments (PubMed:23891108).[UniProtKB/Swiss-Prot Function]

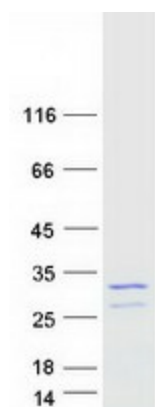
Product images:



Circular map for RC200789



Western blot validation of overexpression lysate (Cat# [LY411415]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC200789 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified MIS12 protein (Cat# [TP300789]). The protein was produced from HEK293T cells transfected with MIS12 cDNA clone (Cat# RC200789) using MegaTran 2.0 (Cat# [TT210002]).