

Product datasheet for **RG200789**

MIS12 (NM_024039) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: MIS12 (NM_024039) Human Tagged ORF Clone
Tag: TurboGFP
Symbol: MIS12
Synonyms: 2510025F08Rik; hMis12; KNTC2AP; MTW1
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >RG200789 representing NM_024039
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAACTACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGTCTGTGGATCCAATGACCTACGAGGCCAGTTCTTTGGCTTCAGCCACAAACGTGCATGCTTCGGA
 TCTACATTGCATTTCAAGACTACCTATTTGAAGTGATGCAGGCCGTTGAACAGGTTATTCTGAAGAAGCT
 GGATGGCATCCAGACTGTGACATTAGCCAGTGCAGATTCGCAAATGCACAGAGAAGTTTCTTTGCTTC
 ATGAAAGGACATTTTGATAACCTTTTAGCAAAATGGAGCAACTGTTTTGCAGCTGATTTTACGTATTC
 CCTCAAACATCTTGCTTCCTGAAGATAAATGTAAGGAGACACCTTATAGTGAGGAAGATTTTCAGCATCT
 CCAGAAAGAAATTGAACAGTTACAGGAGAAGTACAAGACTGAATTATGTACTAAGCAGGCCCTTCTTGCA
 GAATTAGAAGAGCAAAAAATTGTTCAAGCCAAACTCAAACAGACGTTGACTTTCTTTGATGAGCTTCATA
 ATGTTGGCAGAGATCATGGGACTAGTGATTTTAGGGAGAGTTTAGTATCCCTGGTTCAGAACTCCAGAAA
 ACTACAGAACATTAGAGACAATGTGAAAAGGAATCGAAACGACTGAAAAATATCT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG200789 representing NM_024039
 Red=Cloning site Green=Tags(s)

MSVDPMTYEAQFFGFTPQTCMLRIYIAFQDYLFEVMQAVEQVILKKLDGIPDCDISPVQIRKCTEKLFLCF
 MKGHFDNLF SKMEQLFLQLILIPSNILLPEDKCKETPYSEEDFQHLQKEIEQLQEKYKTELCTKQALLA
 ELEEQKIVQAKLKQTLTFFDELHNVGRDHGTSDFRESLVSLVQNSRKLQNIIRDNVEKESKRLKIS

TRTRPLE - GFP Tag - V

Restriction Sites: Sgfl-MluI



[View online »](#)

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: 2509 bp

RefSeq ORF: 618 bp

Locus ID: 79003

UniProt ID: [Q9H081](#)

Cytogenetics: 17p13.2

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 RG200789