

Product datasheet for **MG208531**

Wrap53 (NM_144824) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Wrap53 (NM_144824) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Wrap53
Synonyms:	BC021790; Wdr79
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG208531 representing NM_144824
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAAGACGTCGGAGGAGCGACTCTTAGCTCCGGATAGCCTCCCTCCTGACCTGGCCCCAGCTCCGGTAC
 CCCAAGGTTCCCCAGCGAGAAAAATACAGACTTTGAACCGGTGCCTCCGCCATGCGGTGGTATGACCA
 ACCCCAGCTAGCCACAGATCCCCTGGCTAGCTTGGTTGTGCCAGGAGCTTCAACAAGGGGACTCTGTA
 CCTCTGGAAGTAGAATTTAATACTTCCAGTGAGTTGAGTCTGGAATCGAGGAGCAAGATGTTTCTGAAC
 ATGCGAGTCTCCCGGAGAAGAAACGAATCTCCCCGAGTTGGAGTCAGGAGAAGCCACGGAAGGTGTGTC
 TGAGGAACCGCTGAAGTGGATGAGGGGACACCTTTTGGACCTACAGCTTCTCGCAGGTACCCCGATAC
 CTCAGTGGTTCCTGGTCCGAGTTCAGCACCCGCTCCGAGAATCTTGAAGGTTGCAAGTGGGCCCTG
 ACGTTTCTGTATCTTGACCAATAGTGTGATAATGTCCTTCGGATTTACAACCTGCCCCAGAATTGTA
 CAGTGAACAAGAGCAGGTGGATTACGCCGAAATGGTTCCTGTCTTGAAGTGGTGGAGGGGACACCATC
 TATGATTACTGTGGTATTCTCTGATGTCTCCACCCAGCCAGACACCTCTATGTGCCAGCAGCAGCC
 GGGAGAACCCGATTACATCTGGGATGCATTCCTGAGGAACTACGGGCTTCTTTCGCGCTTACAACCA
 CCTGGATGAGTTGACAGCAGCCACTCGCTCTGTTTCTCCCCGGATGGTCCCAACTCTTCTGTGGCTTC
 AACCGACTGTGCGTGTCTTTCCACATCCAGGCCTGGCAGAGACTGTGAGGTGCGAGCCACATTTGCCA
 AAAAGCAGGGCCAGAGCGGTATCATCTCCTGTATAGCCTTCAGTCCATCCCAGCCCTCTATGCCTGTGG
 CTCCTACGGCCGACCATAGGCCTGTATGCCTGGGATGATGGTTCGCCTTTCCTTGTGGGAGCCAC
 CAAGGGGTATCACCCACCTTTGCTTTCACCCTGATGGCAATCTTCTTCTCGGGAGCCGAAAGGATG
 CTGAATCTGTGCTGGGATCTCCGGCAGCCAGCCACCTCCTGTGGTCTCTGAGTCGGGAAGTGAACCA
 TAATCAGCGCATCTACTTTGATCTGGACCCGAGCGGTGAGTTCCTAGTGAGCGGCAACACCAGTGGAGTT
 GTCTCTGTGGGATATCAGTGGAGCTCTAGTGACGACAGCAAGCTGGAACCCGTGGTACTTTTCTGC
 CTCAGAAGGACTGCACCAACGGAGTCAGCCTTACCCTACCTTGCCTCTACTGGCCACTGCTTCTGGCCA
 GCGCGTGTTCCTGAGCCACCAATAGCGGGGATGAAGGTGAGCTGGAGCTGGAGCTTCTCTGTCTCC
 CTGTGCCACGCCATCCCGAATGCAGCTTCAGCTCTGGTGGTGTGGAGGGGACCTGACCCAGTAGCC
 CTGTTGACGACCAGGATGAAAAGGGACAAAGAAGGACAGAGGCTGTGGGGATGAGT

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>MG208531 representing NM_144824
 Red=Cloning site Green=Tags(s)

MKTSEERLLAPDSLPPDLAPAPVPOGSPAENKNTDFEPVPPPCGGDDQPQLATDPVASLVVSQELQQGDSV
 PLEVEFNTSSELSPGIEEQDVSEHASLPEEETNLPELESGEATEGVSEERAEVDEGDTFTWYSFSQVPRY
 LSGSWSEFSTRSENFLKGCKWAPDGCILTNSADNVLRIYNLPPELYSEQEQVDYAEMVPLRMVEGDTI
 YDYCWYSLMSSTQPDTSYVASSSRENPIHIWDAFTGELRASFRAYNHLDELTAHSLCFSPDGSQFLFCGF
 NRTVRFVSTSRPGRDCEVRATFAKKQGSIGIISCIASFSPQPLYACGSYGRITGLYAWDDGSPLALLGGH
 QGGITHLCFHPDGNLFFSGARKDAELLCWDLRQPGHLLWSLSREVTNQRIFYDLDPGQFLVSGNTSGV
 VSVWDISGALSDDSKLEPVVTFPLPQKDCNGLVSLHPTLPLLATASGQRFVPEPTNSGDEGELELELPLLS
 LCHAHPECQLQLWCGGPDPPSPVDDQDEKQRRTEAVGMS

TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_144824

ORF Size: 1596 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_144824.1](#)

RefSeq Size: 1896 bp

RefSeq ORF: 1599 bp

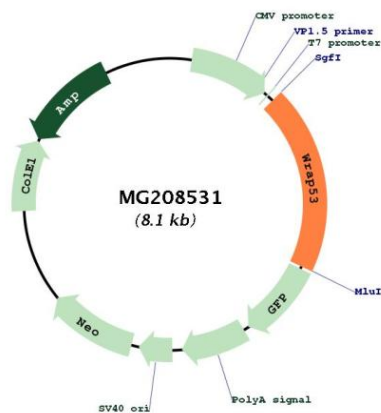
Locus ID: 216853

UniProt ID: [Q8VC51](#)

Cytogenetics: 11 B3

Gene Summary:

RNA chaperone that plays a key role in telomere maintenance and RNA localization to Cajal bodies (PubMed:29804836). Specifically recognizes and binds the Cajal body box (CAB box) present in both small Cajal body RNAs (scaRNAs) and telomerase RNA template component (TERC) (PubMed:29804836). Essential component of the telomerase holoenzyme complex, a ribonucleoprotein complex essential for the replication of chromosome termini that elongates telomeres in most eukaryotes (By similarity). In the telomerase holoenzyme complex, required to stimulate the catalytic activity of the complex (PubMed:29804836). Acts by specifically binding the CAB box of the TERC RNA and controlling the folding of the CR4/CR5 region of the TERC RNA, a critical step for telomerase activity (By similarity). In addition, also controls telomerase holoenzyme complex localization to Cajal body (By similarity). During S phase, required for delivery of TERC to telomeres during S phase and for telomerase activity (By similarity). In addition to its role in telomere maintenance, also required for Cajal body formation, probably by mediating localization of scaRNAs to Cajal bodies (By similarity). Also plays a role in DNA repair: phosphorylated by ATM in response to DNA damage and relocalizes to sites of DNA double-strand breaks to promote the repair of DNA double-strand breaks (By similarity). Acts by recruiting the ubiquitin ligase RNF8 to DNA breaks and promote both homologous recombination (HR) and non-homologous end joining (NHEJ) (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:

Circular map for MG208531