

Product datasheet for **MR210989**

Top3b (NM_011624) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Top3b (NM_011624) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Top3b
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

**ORF Nucleotide
Sequence:**

>MR210989 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGAAGACCGTGCTCATGGTAGCAGAAAAGCCATCCCTGGCACAGTCCATTGCCAAAATCCTCTCCCGAG
 GAAACATGTCCTCACACAAAGGGCTGAATGGGGCATGTTCAAGTGCACAAGTACACAGGAACCTTTGCTGG
 CCAACCTGTCCACTTCAAGATGACGTCTGTCTGCGGTCATGTGATGACACTGGATTTTCTGGGGAAGTAC
 AACAAAGTGGGATAAGGTGGATCCTGCAGAGCTCTTCAGCCAAGCTCCAACAGAGAAAAAGGAAGCTAACCC
 CCAAGCTGAACATGGTCAAGTTCCTGCAGGTGGAGGGCAGAGGCTGTGACTATGTTGTGCTGTGGCTGGA
 CTGTGACAAGGAAGGGGAGAATATTTGCTTTGAGGTCCTTGATGCCGTTCTGCCTGTGATGAATAATGCC
 CACAATGGTGAGAAGACAGTGTTCGTGCCAGGTTGAGTCCATCACTGATACAGACATCTGTAATGCCA
 TGACCCGCTGAGCGAGCCAGACCACAATGAGGCACTCTCAGTGGATGCCCGCCAGGAGCTAGACCTGCG
 CATCGGCTGTGCATTCACTAGGTTTCAAACAAAGTATTTCCAGGAAAAATATGGCGATTTAGACAGCTCT
 CTATCTCCTTTGGGCCATGTCAGACTCCTACCCTGGGATTCGTGTAGAAAAGACATGATAAAATCCAGT
 CCTTCAAGCCAGAGACCTACTGGGTGCTTCAGGCCAAGGTTTCATACAGATAAAGAGGAGTCACTCCTTCT
 GGACTGGGACCGTGTTAGAGTTTTGACTGGGAGATTGCACAGATGTTTTAAACATGACAAAGTTAGAA
 AAAGAAGCTTGGGTGGAGGCTACAAGCAGGAAAGAAAAAGCCAAGCAGAGACCATTGCTCTGAACACTG
 TGGAGATGTTGCGTGTGGCCAGCTCAGCTCTGGGTATGGGACCACAGCACGCCATGCAAAATAGCTGAGAG
 ATTATACACACAGGGCTATATCAGCTACCCACGGACAGAAACCACCCACTATCCCAGAACTTTGACCTG
 AAGGGCTCTTTGCGACAGCAGGCCAATCACCCATACTGGGCAGACTCGGTAAGCAGTGTAGCGGAAG
 GCATCAACCGCCCTCGGAAAGGTCATGATGCTGGTGACCATCTCCAATCACACCTATGAAGTGGCTAC
 AGAGGCTGAATTAGGAGGTGACGCATGGAGACTCTACGAGTATATCACCAGACACTTCATTGCCACAGTG
 AGCCATGACTGCAAGTATCTCCAGAGCACTATCTCCTCAGGATCGGGCCTGAACACTTTACATGATGG
 GAAAAACAGTTATTTCTCCAGGCTTCACAGAGATCATGCCTTGGCAGAGCGTGCCCTGGAAGAGAGTCT
 GCCCAGTGCCAGAAGGGTGATACCTTCACTGTGGGTGAAGTGAAGATGCTAGAGAAGCAGACGAGCCCA
 CCGGACTATCTGACTGAGGCTGAGCTCATCACTCTCATGGAGAAGCATGGTATCGGGACTGATGCCAGTA
 TCCCTGTGCACATCAACAATATCTGCCAGCGCAACTATGTTACTGTGGAGAGTGGCCGCGACTCAAGCC
 CACCAACCTTGGCATAGTTCTGGTGCATGGTACTACAAGATTGATGCAGAGCTGGTACTCCCACCATC
 CGAAGCGCAGTGGAGAAGCAGCTGAATCTTATTGCCAGGGCAAAGCTGACTACCACCAAGTTCTGGGCC
 ATACCCTGGATATCTTCAAGAGAAAGTTCCACTACTTCGTTGATTCTATTGCTGGCATGGACGAGTTGAT
 GGAGGTTTCCTTTACCCCTGGCTGCCACTGGCAAGCCCTCTCACGCTGTGGGAAGTGCCATCGATTT
 ATGAAGTACATCCAGGCCAAGCCAAGTCGCTGCACTGCTCCACTGTGATGAGACCTACACCCTCCCCC
 AGAATGGTACCATCAAGCTCTACAAGGAGCTGCGGTGCCATTGGATGACTTTGAACTGGTCTGTGGTC
 CTCAGGCTCCCGGGGCAAGAGCTACCCACTATGTCCCTACTGCTATAACCACCCACCTTCCGAGACATG
 AAGAAAGGCATGGGCTGCAATGAGTGCACACACCCACCTGCCAGCACTCACTGAGTATGCTGGCATTG
 GCCAGTGGTGAATGCGAGAATGGAGTCTTGTCTGGACCCACTTCTGGTCCAAGTGAAGGTGGC
 CTGCAATACATGCAATGTGGTGGCACACTGCTTTGAAAAATGCCACCCAGTACGGGTATCTGCTGACCC
 TGCAACACCTGCGAGGCTGCCTTGTCTGATGTAGACTTCAACAAGGCCAAGTCTCCCTTCTGGCAATG
 AGACACAGCACACAGGCTGCATCTTGTGACCCGCTTCCAGGAGCTGGTGGAGCTTAAGCATGCAGC
 CTCCTGCCACCCATGCACCGAGGTGGCCTGGAAGGAGGCAGGGTCGTGGGCGGGGCCGGGCGGAGA
 CCTCCAGGAAAGCCCAACCCTAGGCGGCCAAAAGACAAGATGTCAGCTCTGGCTGCTTACTTTGTA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR210989 protein sequence

Red=Cloning site Green=Tags(s)

MKTVLMVAEKPSLAQSIKILSRGNMSSHKGLNGACSVHKYTGTFAGQPVHFKMTSVCGHVMTLDFLGKY
NKWDKVDPAELFSQAPTEKKEANPKLNMVKFLQVEGRGCDYVVLWDCDKEGENICFEVLDAVLPVMNNA
HNGEKTVFRARFSSITDTDICNAMTRLSEPDHNEALSVDARQELDLRIGCAFRFQTKYFQKYGDLSS
LISFGPCQTPTLGFVERHDKIQSFKPETYWVLQAKVHTDKEESLLLDWDRVRVDFWEIAQMFLNMTKLE
KEAWVEATSRKEKAKQRPLALNTVEMLRVASSALGMGPQHAMI AERLYTQGYISYPRTEETHYPENFDL
KGS LRQQANHPYWADSVKQLLAEGINRPRKGDAGDHPPITPMKSATEAELGGDAWRLYEYITRHF IATV
SHDCKYLQSTISFRIGPEHFTCMGKTVISPGFTEIMPWQSVPLEESLPTCQKGDFTVGEVKMLEKQTS
PDYLTEAELITLMEKHGIGTDASIPVHINNICQRNYVTVESGRRLKPTNLGIVLVHGYKIDAELVLP
TIRSAVEKQLNLIAQKADYHQVLGHTLDIFKRKFHYFVDSIAGMDELMEVSFSPLAATGKPLSRCGKCHRF
MKYIQAKPSRLHCSHCDETYTLPQNGTIKLYKELRCPLDDFELVLWSSGSRGKSYPLCPYCYNHPPFRDM
KKGMGCCNECTHPTCQHLSMLGIGQCVECENGLVLDPTSGPKWKVACNTCNVVAHCFENAHRRVRSADT
CNTCEAALLDVDFNKAKSPLPGNETQHTGCI FCDPVFQELVELKHAASCHPMHRGGPGRRQGRGRGRRR
PPGKPNRRPKDKMSALAAFYV

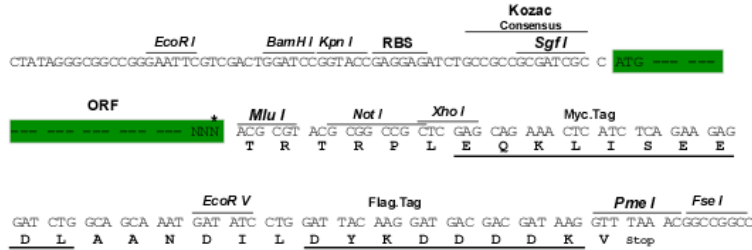
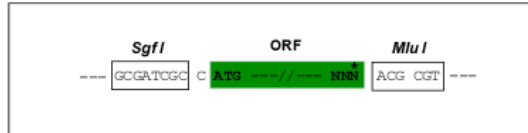
TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



* The last codon before the Stop codon of the ORF

ACCN: NM_011624

ORF Size: 2589 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_011624.3](#)

RefSeq Size: 2987 bp

RefSeq ORF: 2589 bp

Locus ID: 21976

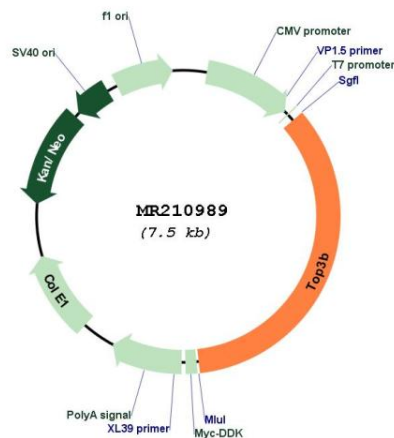
UniProt ID: [Q9Z321](#)

Cytogenetics: 16 A3

MW: 96.9 kDa

Gene Summary: Releases the supercoiling and torsional tension of DNA introduced during the DNA replication and transcription by transiently cleaving and rejoining one strand of the DNA duplex. Introduces a single-strand break via transesterification at a target site in duplex DNA. The scissile phosphodiester is attacked by the catalytic tyrosine of the enzyme, resulting in the formation of a DNA-(5'-phosphotyrosyl)-enzyme intermediate and the expulsion of a 3'-OH DNA strand. The free DNA strand then undergoes passage around the unbroken strand thus removing DNA supercoils. Finally, in the religation step, the DNA 3'-OH attacks the covalent intermediate to expel the active-site tyrosine and restore the DNA phosphodiester backbone (By similarity). Possesses negatively supercoiled DNA relaxing activity.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR210989