

Product datasheet for **RC223204**

TOP3B (NM_003935) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TOP3B (NM_003935) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	TOP3B
Synonyms:	TOP3B1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide
Sequence:**

>RC223204 representing NM_003935
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAAGACTGTGCTCATGGTTGCTGAAAAGCCGTCCTTGGCACAGTCAATTGCCAAAATCCTCTCTAGAG
 GGAGCCTGCTCCTACACAAGGGCTGAACGGGGCCTGCTCAGTCCACGAGTACACTGGGACCTTTGCTGG
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 CCAAGCTGAACATGGTGAAGTTCCTGCAGGTGGAGGGCAGAGGCTGCGACTACATCGTGTGTGGCTGGA
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 CATGGTGGCGAGAAGACCGTGTCCGGGCCAGGTTTAGTCCATCACGGACACAGACATCTGTAATGCCA
 TGGCCTGCCTAGGCGAGCCTGACCACAACGAGGCGCTCTCAGTGGATGCTCGCCAGGAGCTGGACCTGCC
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AG**CGGACCG**ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
 TGGATTACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC223204 representing NM_003935
 Red=Cloning site Green=Tags(s)

MKTVLMVAEKPSLAQSIKILSRGSLSSHKGLNGACSVHEYTGTAFAGQPVRFKMTSVCGHVMTLDFLGKY
 NKWDKVDPAELFSQAPTEKKEANPKLNMVKFLQVEGRGCDYIVLWLDCKEKENICFEVLDVLPVMNKA
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 LISFGPCQTPTLGFCEVERHDKIQSFKPEYVWLQAKVNTDKDRSLLLDWDRVRFVDFREIAQMFLNMTKLE
 KEAQVEATSRKEKAKQRPLALNTVEMLRVASSSLGMGPQHMQTAERLYTQGYISYPRTETTHYPENFDL
 KGSRLRQQANHPYWADTVKRLLAEGINRPRKGHDAGDHPPIPTPKMSATEAELGGDAWRLYEYITRHFIAIV
 SHDCKYLQSTISFRIGPELFTCSGKTVLSPGFTEVMPWQSVPLEESLPTCQRGDAFPVGEVGMLEKQTNP
 PDYLTEAELITLMEKHGIGTDASIPVHINNICQRNYVTVESGRRLKPTNLGIVLVHGYKIDAELVLP
 RSAVEKQLNLIAQKADYRQVLGHTLDVFKRKFHYFVDSIAGMDELMVFSPLAATGKPLSRCGKCHRF
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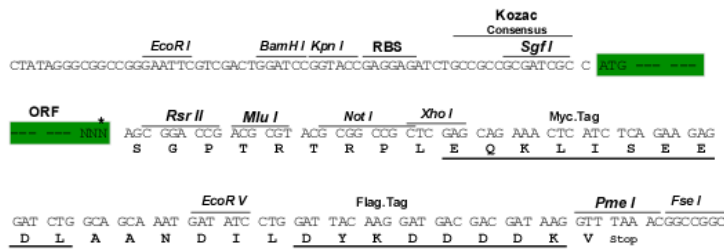
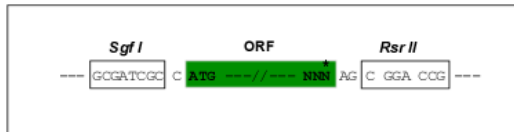
SGP TRRRLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8116_f12.zip

Restriction Sites: SgfI-RsrII

Cloning Scheme:

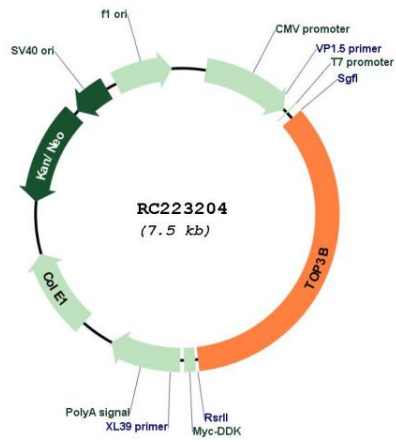
Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN:	NM_003935
ORF Size:	2586 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:	<ol style="list-style-type: none">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_003935.5
RefSeq Size:	3124 bp
RefSeq ORF:	2589 bp
Locus ID:	8940
UniProt ID:	O95985
Cytogenetics:	22q11.22
Domains:	Topoisom_bac, TOP1Bc, TOP1Ac, TOPRIM, Toprim
Protein Pathways:	Homologous recombination
MW:	96.5 kDa
Gene Summary:	This gene encodes a DNA topoisomerase, an enzyme that controls and alters the topologic states of DNA during transcription. This enzyme catalyzes the transient breaking and rejoining of a single strand of DNA which allows the strands to pass through one another, thus relaxing the supercoils and altering the topology of DNA. The enzyme interacts with DNA helicase SGS1 and plays a role in DNA recombination, cellular aging and maintenance of genome stability. Low expression of this gene may be related to higher survival rates in breast cancer patients. This gene has a pseudogene on chromosome 22. Alternate splicing results in multiple transcript variants. Additional alternatively spliced transcript variants of this gene have been described, but their full-length nature is not known. [provided by RefSeq, Aug 2013]

Product images:



Circular map for RC223204