

Product datasheet for **RC208236**

Topoisomerase III alpha (TOP3A) (NM_004618) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Topoisomerase III alpha (TOP3A) (NM_004618) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Topoisomerase III alpha
Synonyms:	MGRISCE2; PEOB5; TOP3; ZGRF7
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC208236 representing NM_004618 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGATCTTTCCTGTGCGCCGCTACGCGCTCCGGTGGCTGCGACGGCCGAAGACCGTGCCTTTTCCCGCG
CCGCCATGGAGATGGCCCTCCGAGGCGTGCAGAAAGTCTCTGTGTGGCCGAAAAAACGACGCGGCCAA
GGGATCGCCGACCTGCTGTCAAACGGTCGCATGAGGCGGAGAGAAGGACTTTCAAATTCACAAGATC
TATGAATTTGATTATCATCTGTATGGCCAGAATGTTACCATGGTAAATGACTTCAGTTTCTGGACATTTAC
TGGCTCATGATTTCCAGATGCAGTTTCGAAAATGGCAGAGCTGCAACCCTTTGTCTCTTTGAAGCAGA
AATTGAAAAGTACTGCCAGAGAATTTGTAGACATCAAGAAAATTTGGAACGAGAGACTCGCCAGTGC
CAGGCTCTGGTATCTGGACTGACTGTGATAGAGAAGGCGAAAACATCGGGTTTGAAGATTATCCACGTGT
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GACAGCTTGTGAAAACCTGACCGAGCCTGATCAGAGGGTGAAGGATGCTGTGGATGTGAGGCAGGAGCTG
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GTAGAATTCAGTGGAAAAGGCATCGACTCTTAACCACAGGCTTGCCTAGTTCTATCAGTTTGTGTG
TGGAGGATCCCATGGCAACTGTGGTAGAGGTGAGATCTAAGCCCAAGAGCAAGTGGCGGCCCTAAGCCTT
GGACACTGTGGAGCTTGAGAAGCTGGCTTCTCGAAAGTTGAGAATAAATGCTAAAGAAACCATGAGGATT
GCTGAGAAGCTCTAACTCAAGGGTACATCAGCTATCCCCGAACAGAAACAAACATTTTTCCAGAGACT
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AGAGCGGGGTGGTCCCACCCACGCAATGGGAACAAGTCTGACCAAGCTCACCTCCATTACCCACC
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CCATGGCCTCATGATTCTGGCCGAAACTATCTGGATGTGTATCCATATGATCACTGGAGTGACAAGATC



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CTCCCTGTCTATGAGCAAGGATCCCACTTTCAGCCCAGCACCGTGGAGATGGTGGACGGGAGACCAGCC
 CACCCAAGCTGCTCACCGAGGCCGACCTCATTGCCCTCATGGAGAAGCATGGCATTGGTACGGATGCCAC
 TCATGCGGAGCACATCGAGACCAAAAGCCGGATGTACGTGGGCCCTACCCCAGACAAGCGGTTCCCTC
 CCTGGGCACCTGGGCATGGGACTGTGGAAGGTTATGATTCCATGGGCTATGAAATGTCTAAGCCTGACC
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 CCCCAGAAATGCAGCCTTTGCCACCAGCCTGGACACACCCGTCCTTTTGTCTCAGAACAGA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC208236 representing NM_004618
 Red=Cloning site Green=Tags(s)

MIFPVARYALRWLRPEDRAFSRAAMEMALRGVRKVLCAEKNDAAKGIADLLSNGMRMRREGLSKFNKI
 YEFDYHLYGQNVMTMVMTSVSGHLLAHDQFMQFRKWQSCNPLVLEAEIEKYCPENFVDIKKTLERETRQC
 QALVIWTDREGENIGFEIIHVCKAVKPNLQVLRARFSEITPHAVRTACENLTPDQRVSDAVDVRQEL
 DLRIGAAFTRFQTLRLQRIFPEVLAELISYGSCQFPTLGFVVERFKAIQAFVPEIFHRIKVTDHDKGI
 VEFNWKRHRLFNHTACLVLQQLVEDPMATVVEVRSKPKSKWRPQALDTVELEKLASRKLRIKAKETMRI
 AEKLYTQGYISYPRTEINIFPRDLNLTVLVEQQTPDPRWGAFQSI LERGGTPRNGKSDQAHPPIHPT
 KYTNNLQDEQRLYEFIVRHFLACCSQDAQGQETTVEIDIAQERFVAHGLMILARNYLDVYPYDHWSDKI
 LPVYEQGSHFQPVSTVEMVDGETSPPKLLTEADLIALMEKHGIGTDATHAEHIETIKARMYVGLTPDKRFL
 PGHLMGLVEGYDSMGYEMSKPDLRAELEADLKLICDGKKDKFVFLRQQVQKYQVIEAVAKAKKLEA
 LAQYFNGTTELAQQEDIYPAMPEPIRKCPQCNKDMVLKTKKNGGFYLSMGFPECRSAVWLPDSVLEASR
 DSSVCPVCQPHVYRLKLFKRGSLPPTMPLEFVCCIGGDDTLREILDRLFSGGPPRASQPSGRQLANQ
 SLNRMDNSQHPQPADSRQTGSSKALAQLPPTAAGESNSVTCNCGQEAVLLTVRKEGPNRGRQFFKCNQ
 GSCNFFLWADSPNPGAGGPPALAYRPLGASLGCPPGPIHLGGFNGPGDGSSTGSLCSQPSVTRTVQK
 DGPNGRQFHTCAKPREQQCGFFQWVDENTAPGTSGAPSWTGDGRGRTLESEARSKRPRASSSDMGSTAKK
 PRKCSLCHQPHTRPFCPQNR

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk8113_f08.zip

Restriction Sites:

SgfI-MluI

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_004618.5](#)

RefSeq Size: 4116 bp

RefSeq ORF: 3006 bp

Locus ID: 7156

UniProt ID: [Q13472](#)

Cytogenetics: 17p11.2

Domains: Topoisom_bac, zf-CCHC, TOP1Bc, TOP1Ac, TOPRIM, Toprim

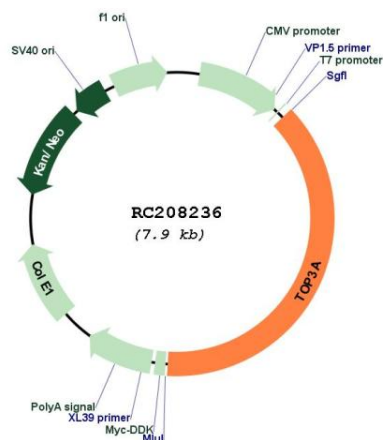
Protein Families: Druggable Genome

Protein Pathways: Homologous recombination

MW: 112.2 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 reducing the number of supercoils and altering the topology of DNA. This enzyme forms a complex with BLM which functions in the regulation of recombination in somatic cells. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Mar 2016]

Product images:



Circular map for RC208236