

## Product datasheet for RC208236L4

### Topoisomerase III alpha (TOP3A) (NM\_004618) Human Tagged Lenti ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Topoisomerase III alpha (TOP3A) (NM_004618) Human Tagged Lenti ORF Clone
Tag:	mGFP
Symbol:	Topoisomerase III alpha
Synonyms:	MGRISCE2; PEOB5; TOP3; ZGRF7
Mammalian Cell Selection:	Puromycin
Vector:	pLenti-C-mGFP-P2A-Puro (PS100093)
E. coli Selection:	Chloramphenicol (34 ug/mL)
ORF Nucleotide Sequence:	The ORF insert of this clone is exactly the same as(RC208236).
Restriction Sites:	SgfI-MluI
Cloning Scheme:	

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF.

ACCN:	NM_004618
ORF Size:	3003 bp



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**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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\\_004618.3](#)

**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

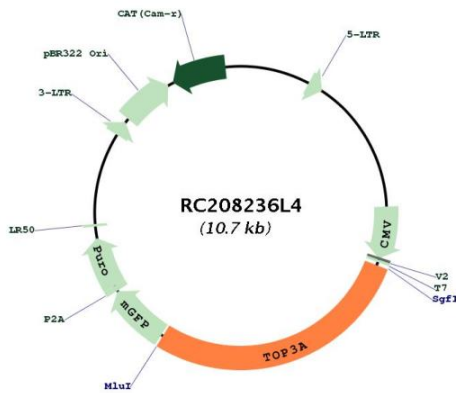
**Protein Pathways:** Homologous recombination

**MW:** 112.2 kDa

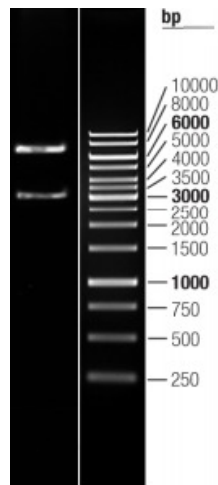
**Gene Summary:**

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 RC208236L4



Double digestion of RC208236L4 using SgfI and MluI