

## Product datasheet for **RC221568L2V**

### Topoisomerase II alpha (TOP2A) (NM\_001067) Human Tagged ORF Clone Lentiviral Particle

#### Product data:

|                           |  |
|---------------------------|--|
| Product Type:             | Lentiviral Particles   |
| Product Name:             | Topoisomerase II alpha (TOP2A) (NM_001067) Human Tagged ORF Clone Lentiviral Particle  |
| Symbol:                   | TOP2A  |
| Synonyms:                 | TOP2; TOP2alpha; TOPIIA; TP2A  |
| Mammalian Cell Selection: | None   |
| Vector:                   | pLenti-C-mGFP (PS100071)   |
| Tag:                      | mGFP   |
| ACCN:                     | NM_001067  |
| ORF Size:                 | 4593 bp  |
| ORF Nucleotide Sequence:  | The ORF insert of this clone is exactly the same as(RC221568).   |
| 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. <a href="#">More info</a> |
| OTI Annotation:           | This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.   |
| RefSeq:                   | <a href="#">NM_001067.2</a>  |
| RefSeq Size:              | 5698 bp  |
| RefSeq ORF:               | 4596 bp  |
| Locus ID:                 | 7153   |
| UniProt ID:               | <a href="#">P11388</a>   |
| Cytogenetics:             | 17q21.2  |
| Domains:                  | DNA_gyraseB, DNA_topoisolV, HATPase_c  |
| Protein Families:         | Druggable Genome   |



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**MW:** 174.2 kDa

**Gene Summary:** This gene encodes a DNA topoisomerase, an enzyme that controls and alters the topologic states of DNA during transcription. This nuclear enzyme is involved in processes such as chromosome condensation, chromatid separation, and the relief of torsional stress that occurs during DNA transcription and replication. It catalyzes the transient breaking and rejoining of two strands of duplex DNA which allows the strands to pass through one another, thus altering the topology of DNA. Two forms of this enzyme exist as likely products of a gene duplication event. The gene encoding this form, alpha, is localized to chromosome 17 and the beta gene is localized to chromosome 3. The gene encoding this enzyme functions as the target for several anticancer agents and a variety of mutations in this gene have been associated with the development of drug resistance. Reduced activity of this enzyme may also play a role in ataxia-telangiectasia. [provided by RefSeq, Jul 2010]