

## Product datasheet for **SC118105**

### Topoisomerase I (TOP1) (NM\_003286) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Topoisomerase I (TOP1) (NM_003286) Human Untagged Clone
Tag:	Tag Free
Symbol:	Topoisomerase I
Synonyms:	TOPI
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL5</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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## Fully Sequenced ORF:

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>OriGene ORF sequence for NM_003286 edited
ATGAGTGGGGACCACCTCCACAACGATTCCAGATCGAAGCGGATTTCCGATTGAATGAT
TCTCATAAACACAAAGATAAACACAAAGATCGAGAACACCGGCACAAAGAACACAAGAAG
GAGAAGGACCGGGAAAAGTCCAAGCATAGCAACAGTGAACATAAAGATTCTGAAAAGAAA
CACAAAGAGAAGGAGAAGACCAACACAAAGATGGAAGCTCAGAAAAGCATAAAGACAAA
CATAAAGACAGAGACAAGGAAAAACGAAAAGAGGAAAAGTTTCGAGCCTCTGGGGATGCA
AAAATAAAGAAGGAGAAGGAAAATGGCTTCTCTAGTCCACCACAATTAAGATGAACCT
GAAGATGATGGCTATTTTGTTCCTCTAAAGAGGATATAAAGCCATTAAGAGACCTCGA
GATGAGGATGATGCTGATTATAAACCTAAGAAAATTAACACAGAAGATACCAAGAAGGAG
AAGAAAAGAAAAGTAGAAGAAGAAGAGGATGGTAAATTGAAAAACCAAGAATAAAGAT
AAAGATAAAAAAGTTCTGAGCCAGATAACAAGAAAAAGAGCCGAAGAAAGAAGAGGAA
CAGAAGTGGAATGGTGGGAAGAAGAGCGCTATCCTGAAGGCATCAAGTGGAAATTCCTA
GAACATAAAGGTCCAGTATTTGCCCCACCATATGAGCCTCTCCAGAGAATGTCAAGTTT
TATTATGATGGTAAAGTCATGAAGCTGAGCCCCAAGCAGAGGAAGTAGCTAC: GTTC: T
TTGCAAAAATGCTCGACCATGAATATACTACCAAGGAAAATTTTAGGAAAATTTCTTTA
AAGACTGGAGAAAAGGAAATGACTAATGAAGAGAAGAATATTATACCAACCTAAGCAAAT
GTGATTTTACCCAGATGAGCCAGTATTTCAAAGCCCAGACGGAAGCTCGGAAACAGATGA
GCAAGGAAGAGAAAAGTGAATCAAAGAGGAGAATGAAAAATTAAGTGAAGAATATGGAT
TCTGTATTATGGATAACCAAGAGAGAGGATTGCTAACTTCAAGATAGAGCCTCCTGGAC
TTTTCCGTGGCCGCGCAACCACCCAAGATGGGCATGCTGAAGAGACGAATCATGCCCG
AGGATATAATCATCAACTGTAGCAAAGATGCCAAGGTTCTTTCTCC: TCCTCCAGGACAT
AAGTGGAAAGAAGTCCGGCATGATAACAAGGTTACTTGGCTGGTTTCTGGACAGAGAAC
ATCCAAGGTTCCATTAATAACATCATGCTTAACCCTAGTTCACGAATCAAGGGTGAGAAG
GACTGGCAGAAAATACGAGACTGCTCGGGCGTGAAAAAATGTGTGGACAAGATCCGGAAC
CAGTATCGAGAAGACTGGAAGTCCAAAGAGATGAAAGTCCGGCAGAGAGCTGTAGCCCTG
TACTTCATCGACAAGCTTCTGCTGAGAGCAGGCAATGAAAAGGAGGAAGGAGAAACAGCG
GACTGTGGGCTGCTGCTCACTTCGTGTGGAGCACATCAATCTACACCCAGAGTTGGAT
GGTCAGGAATATGTGGTAGAGTTTGACTTCCTCGGGAAGGACTCCATCAGATACTATAAC
AAGGTCCTGTGAGAAACGAGTTTTTAAGAACCTACAATTTATGGAGAACAAGCAG
CCCGAGGATGATCTTTTATAGACTCAATACTGGTATTCTGAATAAGCATCTTCAGGAT
CTCATGGAGGGCTTGACAGCCAAGGTATTCGTACATACAATGCCTCCATCACGCTACAG
CAGCAGCTAAAAGAACTGACAGCCCCGATGAGAACATCCAGCGAAGATCCTTTCTTAT
AACCGTGCCAATCGAGCTGTTGCAATTCTTTGTAAACCATCAGAGGGCACCACAAAAAAGT
TTTGAGAAGTCTATGATGAACTGCAAACTAAGATTGATGCCAAGAAGGAACAGCTAGCA
GATGCCCGGAGAGACCTGAAAAGTGTAAAGGCTGATGCCAAGGTCATGAAGGATGCAAAG
ACGAAGAAGGTAGTAGAGTCAAAGAAGAAGGCTGTTTCAGAGACTGGAGGAACAGTTGATG
AAGCTGGAAGTTCAAGCCACAGACCCGAGAGGAAAATAAACAGATTGCCCTGGGAACCTCC
AAACTCAATTATCTGGACCCTAGGATCACAGTGGCTTGGTGCAAGAAGTGGGGTGTCCCA
ATTGAGAAGATTTACAACAAAACCCAGCGGGAGAAGTTTGCCTGGGCCATTGACATGGCT
GATGAAGACTATGAGTTTTAG
```

**5' Read Nucleotide Sequence:**

>OriGene 5' read for NM\_003286 unedited  
 TTTTGTAAACGACTCCACTATAGGGCCGCGCCGCAATTCGGCACGAGGGTTACACAA  
 CTGCTGGGGTCTGTTCTCGCCGCCCGCCCGGCAGTCAGGCAGCGTCGCCGCCGTGGTAGC  
 AGCCTCAGCCGTTTCTGGAGTCTCGGGCCACAGTCACCGCCGTTACCTGCGCCTCCTC  
 GAGCCTCCGGAGTCCCGTCCGCCCGCACAGGCCGTTTCGCCGTCTGCGTCTCCCCACG  
 CCGCCTCGCCTGCCCGCGCTCGTCCCTCCGGGCCGACATGAGTGGGGACCACCTCCAC  
 AACGATCCCAGATCGAAGCGGATTTCCGATTGAATGATTCTCATAAACACAAAGATAAA  
 CACAAAGATCGAGAACCAGGCACAAAGAACACAAGAAGGAGAAGGACCGGGAAAAGTCC  
 AAGCATAGCAACAGTGAACATAAAGATTCTGAAAAGAAAACAAAAGAGAAGGAGAAGACC  
 AAACACAAAGATGGAAGCTCAGAAAAGCATAAAGACAAACATAAAGACAGAGACAAGGAA  
 AAACGAAAAGAGGAAAAGGTTTCGAGCCTCTGGGGATGCAAAATAAAGAAGGAGAAGGAAA  
 ATGGCTTCTCTAGTCCACCACATATTAAGATGAACCTGAAGATGATGGCTATTTTGTTC  
 CTCCTAAAGAGGATTATAAGCCATTAAGAGACCTCGAGATGAGGATGATGCTGATTATT  
 ACCCTAGGAAATTAACCAGAGGATCCCAGAAAGAGATGAAAGAACTTGAAGAGAAGAG  
 GGTGGTAAATTGAAAACCCAAAATTAAGTACAAGAAAAAAGTTCTGGGCCCTCATAC  
 ATGAACAGCACCCCTAGCAAGAAGAGAACCTAACGAAAATGGTGAAGAACAGCCCTTCC  
 TGAAGCCTT

**3' Read Nucleotide Sequence:**

>OriGene 3' read for NM\_003286 unedited  
 CTATGCTACCGCGTGCCGCATNCTAAAATCGAGTTTTTTTTTTTTTTTTTCTTAAGCT  
 GTAGGAATTTATTTTAAATAACCTACAGTTGATTAAGGGAATTCATGATAAAAATACA  
 AGATACTTGAGGAAAGATGTGGGAAATGGACTCTGCACACACACTAAACTACAATGCCT  
 CTAAACTAATGATTATAGCAAAAATGTCTTACATTAATTTCTGCTTTTATGTTTT  
 TTTCCATTTTTTACACAATTACAAAAGAAAAAATAAAAGCCCTAAAATCTTGATTATTT  
 TCCTTTTTTTGGACCAATACTCATTTCCTCTAAGTTTATTGACCTGTGAACTTTTTTA  
 TACAATAAAATCTTTCAAGTAAAAGATTAGGGTAAAAAGAAAAGATGGATATCTTAA  
 GGGTACAGCGAATGCTCAGAACAAGGATGATGGGCAAAATGGTTTCAGCCACTGATTAT  
 TCCATTATCCTTAGATTCACTCGCCCTTGATCCCTCCCAACCCCAATTTACACGATCTT  
 TAAGATCAAGAAAAGGTTTAAATATTTTAAAAAATAATCAAAAAGAAATAAAAATTCACAT  
 TTA AAAAGGAACACTGAAGCCAGGAAACATTTCCGCATCATGCTTCCCTGTGAACAGGT  
 GTTTGACC AAAACACTGCCAAAAGGCACGACCGCTTCAAGCTTAATGAAAATTGATCCCC  
 CCGACAATAGAGAGTGACGACTCTAACAGCGCGCCGGGATTTTTGCCCTACTTAACCTT  
 AACACCTGAAAGGGAGAGAGCAAGGGAGCCTAGAATTTATTCCTATCCAATATAGAGCTA  
 TTGGGAACCCACTGTAAAAGCAGCATATAACCGACCTTCATCAGCCCTAAGAGACCC  
 AACTTTCAGAAACGCGAACTGCCTGGA AAAACCTGAAACATCCAATCCTGCCTCTGGAAC  
 AAAACAGATTC AACACAT

**Restriction Sites:**

NotI-NotI

**ACCN:**

NM\_003286

**Insert Size:**

2298 bp

**OTI Disclaimer:**

Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

**OTI Annotation:**

This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_003286.2</a> , <a href="#">NP_003277.1</a>
<b>RefSeq Size:</b>	3734 bp
<b>RefSeq ORF:</b>	2298 bp
<b>Locus ID:</b>	7150
<b>UniProt ID:</b>	<a href="#">P11387</a>
<b>Cytogenetics:</b>	20q12
<b>Domains:</b>	TOPEUc
<b>Protein Families:</b>	Druggable Genome
<b>Gene Summary:</b>	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 altering the topology of DNA. This gene is localized to chromosome 20 and has pseudogenes which reside on chromosomes 1 and 22. [provided by RefSeq, Jul 2008]