

TOP3B Antibody (C-term) Blocking Peptide
Synthetic peptide
Catalog # BP16775b**Specification**

TOP3B Antibody (C-term) Blocking Peptide - Product InformationPrimary Accession [O95985](#)**TOP3B Antibody (C-term) Blocking Peptide - Additional Information****Gene ID** 8940**Other Names**

DNA topoisomerase 3-beta-1, DNA topoisomerase III beta-1, TOP3B, TOP3B1

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

TOP3B Antibody (C-term) Blocking Peptide - Protein Information**Name** TOP3B**Synonyms** TOP3B1**Function**

Releases the supercoiling and torsional tension of DNA introduced during the DNA replication and transcription by transiently cleaving and rejoining one strand of the DNA duplex. Introduces a single-strand break via transesterification at a target site in duplex DNA. The scissile phosphodiester is attacked by the catalytic tyrosine of the enzyme, resulting in the formation of a DNA-(5'-phosphotyrosyl)- enzyme intermediate and the expulsion of a 3'-OH DNA strand. The free DNA strand then undergoes passage around the unbroken strand thus removing DNA supercoils. Finally, in the religation step, the DNA 3'-OH attacks the covalent intermediate to expel the active-site tyrosine and restore the DNA phosphodiester backbone (By similarity). Possesses negatively supercoiled DNA relaxing activity.

Tissue Location

Isoform 1 is found in testis, heart and skeletal muscle. A 4 kb transcript which probably represents isoform 2 is found in thymus, kidney and pancreas.

TOP3B Antibody (C-term) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

TOP3B Antibody (C-term) Blocking Peptide - Images

TOP3B Antibody (C-term) Blocking Peptide - Background

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. Alternative splicing of the C-terminus of this gene results in three transcript variants which have distinct tissue specificity; however, not all variants have been fully described.

TOP3B Antibody (C-term) Blocking Peptide - References

Oliveira-Costa, J.P., et al. Hum. Pathol. 41(11):1624-1630(2010) Lesch, K.P., et al. J Neural Transm 115(11):1573-1585(2008) Cho, Y.H., et al. Biochim. Biophys. Acta 1679(3):272-278(2004) Lehner, B., et al. Genome Res. 14(7):1315-1323(2004) Collins, J.E., et al. Genome Biol. 5 (10), R84 (2004) :