

Novocastra™ Lyophilized Mouse Monoclonal Antibody Topoisomerase I

Product Code: NCL-TOPO I

Intended Use	FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES.
Specificity	Human topoisomerase I.
Clone	1D6
Ig Class	IgG2b
Antigen Used for Immunizations	Prokaryotic recombinant protein corresponding to a region within the middle of the topoisomerase I molecule.
Hybridoma Partner	Mouse myeloma (p3-NS1-Ag4-1).
Preparation	Lyophilized tissue culture supernatant containing sodium azide. Reconstitute with the volume of sterile distilled water indicated on the vial label.
Effective on Frozen Tissue	Yes.
Effective on Paraffin Wax Embedded Tissue	Yes.
Recommendations on Use	Immunohistochemistry on paraffin sections. Heat Induced Epitope Retrieval (HIER): Please follow the instructions for use in Novocastra Epitope Retrieval Solution pH 6. Suggested dilution: 1:100 for 30 minutes at 25 °C. This is provided as a guide and users should determine their own optimal working dilutions. Visualization: Please follow the instructions for use in the Novolink™ Polymer Detection Systems. For further product information or support, contact your local distributor or regional office of Leica Biosystems, or alternatively, visit the Leica Biosystems Web site, www.LeicaBiosystems.com <u>The performance of this antibody should be validated when utilized with other manual staining systems or automated platforms.</u>
Positive Controls	Immunohistochemistry: Tonsil.
Staining Pattern	Nuclear.
Storage and Stability	Store unopened lyophilized antibody at 2-8 °C. Under these conditions, there is no significant loss in product performance up to the expiry date indicated on the vial label. The reconstituted antibody is stable for at least two months when stored at 2-8 °C. For long term storage, it is recommended that aliquots of the antibody are frozen at -20 °C (frost-free freezers are not recommended). Repeated freezing and thawing must be avoided. Prepare working dilutions on the day of use.
Warnings and Precautions	This reagent has been prepared from the supernatant of cell culture. As it is a biological product, reasonable care should be taken when handling it. This reagent contains sodium azide. A Material Safety Data Sheet is available upon request or available from www.LeicaBiosystems.com





B I O S Y S T E M S

General Overview

Topoisomerases are nuclear enzymes involved in a variety of cellular activities such as chromosome condensation, DNA replication, transcription, recombination and segregation at mitosis. Human topoisomerase I is a 100 kd protein capable of relaxing positively and negatively supercoiled DNA by performing a transient single-stranded nick which is then re-ligated at the end of the reaction. It has been shown that the enzyme is located in regions of the genome that are undergoing active RNA synthesis, where it probably reduces superhelical stresses in the DNA, enabling RNA polymerase to function properly. In normal eukaryotic cells, DNA topoisomerase I does not show relevant fluctuations across the cell cycle.

General References

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