



Product Information Sheet

Polyclonal Anti-DNA Topoisomerase II α , TOP2A

Catalogue No. PA1127

Lot No. 08J01

Ig type: rabbit IgG

Size: 100 μ g/vial

Specificity

Human, rat, mouse.

No cross reactivity with other proteins.

Recommended application

Western blot

Immunogen

A synthetic peptide mapping at the C-terminal of human TOP2A, different from the related mouse sequence by four amino acids.

Purity

Immunogen affinity purified.

Application

Western blot

At 1-2 μ g/ml with the appropriate system to detect TOP2A in cells and tissues.

Other applications have not been tested.

Optimal dilutions should be determined by end user.

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg Thimerosal, 0.05mg NaN₃.

Reconstitution

0.2ml of distilled water will yield a concentration of 500 μ g/ml.

To reorder contact us at:

Antagene, Inc.

Toll Free: 1(866)964-2589

email: Info@antageneinc.com

Storage

At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for longer time.

BACKGROUND

The human topoisomerase II enzyme is encoded by a single-copy gene which is mapped to 17q21-q22. The TOP2A gene spans approximately 30 kb and contains 35 exons. Furthermore, DNA topoisomerases are enzymes that control and alter the topologic states of DNA in both prokaryotes and eukaryotes. Topoisomerase II from eukaryotic cells catalyzes the relaxation of supercoiled DNA molecules, catenation, decatenation, knotting, and unknotting of circular DNA. It appears likely that the reaction catalyzed by topoisomerase II involves the crossing-over of 2 DNA segments. There are about 100,000 molecules of topoisomerase II per HeLa cell nucleus, constituting about 0.1% of the nuclear extract¹. DNA topoisomerase II-alpha is associated with the pol II holoenzyme and is a required component of chromatin-dependent coactivation. Specific inhibitors of topoisomerase II blocked transcription on chromatin templates, but did not affect transcription on naked templates. Addition of purified topoisomerase II-alpha reconstituted chromatin-dependent activation activity in reactions with core pol II².

REFERENCE

1. Miller, K. G.; Liu, L. F.; Englund, P. T. : A homogeneous type II DNA topoisomerase from HeLa cell nuclei. J. Biol. Chem. 256: 9334-9339, 1981.
2. Mondal, N.; Parvin, J. D. : DNA topoisomerase II-alpha is required for RNA polymerase II transcription on chromatin templates. Nature 413: 435-438, 2001.