Product Informatiion Sheet

Polyclonal Anti-DNA Topoismerase II α, TOP2A **(Magnetic Bead Conjugate)**

Catalogue No. PA1127-M

Lot No. 08J01

Ig type: rabbit IgG1

Size: 100μg/Vial

Specificity

Human, rat mouse.
No cross reactivity with other proteins.

Recommended application

Immunoprecipitation(IP)

Immunogen

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

Purification

Immunogen affinity purified

Contents

Each vial contains 1mg/ml Magnetic Bead in PBS, pH 7.2, 0.05mg NaN_3.

Storage

Store at 4˚C for frequent use.

Description:

This Antagene antibody is immobilized by the covalent reaction of hydrazinonicotinamide-modified antibody with formylbenzamide-modified magnetic beads. It is useful for immunoprecipitation

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.