

Anti-Topoisomerase II Alpha Antibody

Catalog # ABO10582

Specification

Anti-Topoisomerase II Alpha Antibody - Product Information

ApplicationWBPrimary AccessionP11388HostRabbitReactivityHumanClonalityPolyclonalFormatLyophilizedDescriptionRabbit IgG polyclonal antibody for DNA topoisomerase 2-alpha(TOP2A) detection. Tested with WB in Human.

Reconstitution Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-Topoisomerase II Alpha Antibody - Additional Information

Gene ID 7153

Other Names DNA topoisomerase 2-alpha, 5.99.1.3, DNA topoisomerase II, alpha isozyme, TOP2A, TOP2

Calculated MW 174385 MW KDa

Application Details Western blot, 0.1-0.5 μg/ml, Human

Subcellular Localization Cytoplasm . Nucleus, nucleoplasm . Generally located in the nucleoplasm.

Protein Name DNA topoisomerase 2-alpha

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

Immunogen

A synthetic peptide corresponding to a sequence at the C-terminus of human Topoisomerase II alpha(1466-1480aa RKPSTSDDSDSNFEK), different from the related rat sequence by three amino acids, and different from the related mouse sequence by four amino acids

Purification Immunogen affinity purified.

Cross Reactivity



No cross reactivity with other proteins

Storage

At -20°C for one year. After r°Constitution, at 4°C for one month. It°Can also be aliquotted and stored frozen at -20°C for a longer time.Avoid repeated freezing and thawing.

Sequence Similarities Belongs to the type II topoisomerase family.

Anti-Topoisomerase II Alpha Antibody - Protein Information

Name TOP2A

Synonyms TOP2

Function

Key decatenating enzyme that alters DNA topology by binding to two double-stranded DNA molecules, generating a double-stranded break in one of the strands, passing the intact strand through the broken strand, and religating the broken strand (PubMed:17567603, PubMed:18790802, PubMed:18790802, PubMed:22013166, PubMed:22013166, PubMed:22013166, PubMed:22323612, PubMed:<a href="http://

Cellular Location Cytoplasm. Nucleus, nucleoplasm. Nucleus. Nucleus, nucleolus

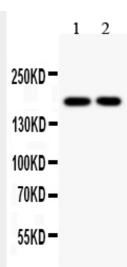
Tissue Location Expressed in the tonsil, spleen, lymph node, thymus, skin, pancreas, testis, colon, kidney, liver, brain and lung (PubMed:9155056). Also found in high-grade lymphomas, squamous cell lung tumors and seminomas (PubMed:9155056)

Anti-Topoisomerase II Alpha Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

Anti-Topoisomerase II Alpha Antibody - Images



Anti- Topoisomerase II alpha antibody, ABO10582, Western blottingAll lanes: Anti Topoisomerase II alpha (ABO10582) at 0.5ug/mlLane 1: HELA Whole Cell Lysate at 40ugLane 2: JURKAT Whole Cell Lysate at 40ugPredicted bind size: 174KDObserved bind size: 174KD

Anti-Topoisomerase II Alpha Antibody - 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 extract. 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 II.