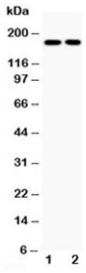
Topoisomerase II alpha Antibody for WB / TOP2A Western Blot Antibody (R30295)

Catalog No.	Formulation	Size
R30295	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2.5% BSA and 0.025% sodium azide/thimerosal
UniProt	P11388
Applications	Western Blot : 0.5-1ug/ml
Limitations	This Topoisomerase II alpha antibody is available for research use only.



Topoisomerase II alpha Antibody for WB / TOP2A Western Blot Antibody. Western blot analysis of human cell lysates demonstrates detection of TOP2A protein using the antibody following SDS-PAGE separation and membrane transfer. Lane 1: HeLa cell lysate. Lane 2: Jurkat cell lysate. A band is detected at approximately 170-180 kDa, consistent with the predicted molecular weight of Topoisomerase II alpha / TOP2A (~174 kDa). The clear band observed in both lysates confirms recognition of denatured TOP2A protein in western blot assays and supports the use of this antibody for western blot detection of TOP2A expression in human cell lines.

Description

DNA topoisomerase II alpha (TOP2A) is a nuclear enzyme that regulates DNA topology during replication, transcription, and chromosome segregation. The protein belongs to the type II DNA topoisomerase family and functions by generating transient double strand breaks that relieve torsional stress produced during DNA replication and chromatin condensation. Because TOP2A expression increases during S phase and mitosis, the protein is widely used as a molecular marker of proliferating cells and rapidly dividing tumor populations. TOP2A localizes primarily to the nucleus where it participates in

chromosome condensation and segregation during cell division.

Topoisomerase II alpha Antibody for WB is designed specifically for detection of TOP2A protein in western blot assays. Western blot analysis remains one of the most widely used techniques for confirming protein expression because it enables separation of proteins by SDS-PAGE followed by antibody-based detection of the target protein on a membrane. In western blot workflows, the TOP2A antibody recognizes denatured Topoisomerase II alpha protein after electrophoretic separation, allowing visualization of a band corresponding to the target enzyme in complex cell or tissue lysates.

Western blot analysis provides important confirmation of antibody specificity because proteins are resolved according to molecular size prior to antibody detection. The Topoisomerase II alpha Antibody for WB therefore allows researchers to verify detection of the expected TOP2A protein band and evaluate relative protein abundance across different biological samples. This property makes western blot experiments particularly valuable for validating TOP2A expression in cultured cell lines, tumor derived lysates, or experimental model systems.

TOP2A western blot analysis is frequently performed in studies examining cell proliferation, DNA replication stress, and cell cycle regulation. Because the enzyme accumulates in dividing cells, western blot detection of TOP2A often reveals higher band intensity in proliferating cell populations or tumor cell lines compared with non-dividing cells. Researchers studying DNA replication mechanisms or chromatin organization commonly use western blot analysis to monitor changes in TOP2A protein levels during cell cycle progression or in response to pharmacologic inhibitors targeting DNA topoisomerases.

The Topoisomerase II alpha Antibody for WB enables reliable detection of TOP2A protein following SDS-PAGE separation and membrane transfer. This rabbit polylconal provides consistent recognition of the target protein in western blot experiments, supporting reproducible detection of TOP2A bands across independent experiments. Western blot analysis using this antibody allows investigators to evaluate TOP2A protein expression across multiple experimental conditions while maintaining the ability to confirm molecular weight based identification of the target protein.

Western blot detection of TOP2A antibody signal therefore provides a robust biochemical method for studying this nuclear enzyme in cell lysates and tissue samples. By enabling visualization of the TOP2A protein band following electrophoretic separation, the Topoisomerase II alpha Antibody for WB supports research investigating DNA replication machinery, cell cycle regulation, and proliferation associated nuclear protein expression.

Application Notes

The stated application concentrations are suggested starting amounts. Titration of the Topoisomerase II alpha Antibody for WB / TOP2A Western Blot Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

An amino acid sequence from the C-terminus of human Topoisomerase II alpha (RKPSTSDDSDSNFEK) was used as the immunogen for this Topoisomerase II alpha Antibody for WB / TOP2A Western Blot Antibody.

Storage

After reconstitution, the Topoisomerase II alpha antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

TOP2A antibody, DNA Topoisomerase II alpha antibody, Topoisomerase IIa antibody, DNA topoisomerase II antibody, TOP2A nuclear enzyme antibody

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