**Topo IÎ² (H-8): sc-25330**

**BACKGROUND**

DNA topoisomerase I and II (Topo I and Topo II) are nuclear enzymes that regulate the topological structure of DNA in eukaryotic cells by transiently breaking and rejoining DNA strands. Eukaryotic topoisomerases are capable of relaxing both positive and negative supercoils, whereas prokaryotic topoisomerases relax only negative supercoils. DNA topoisomerase play a role in DNA replication, recombination and transcription, and have been identified as targets of numerous anticancer drugs. Topo I, a ubiquitously expressed, soluble enzyme, acts by introducing a transient single-strand break. Topo II acts by making a transient double-strand break. Topo II is encoded by two different genes to generate two distinct isoforms that are designated Topo IIÎ± and Topo IIÎ². Topo IIÎ² and Topo IIÎ± are largely homologous at their N-terminal three quarters, however, the C-terminal segments are considerably divergent, suggesting that these regions may mediate different cellular functions and account for the observed differential tissue expression patterns of the two isoforms.

**CHROMOSOMAL LOCATION**

Genetic locus: TOP2B (human) mapping to 3p24.2; Top2b (mouse) mapping to 14 A2.

**SOURCE**

Topo IIÎ² (H-8) is a mouse monoclonal antibody raised against amino acids 1341-1626 of Topo IIÎ² of human origin.

**PRODUCT**

Each vial contains 200 µg IgG1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Topo IIÎ² (H-8) is available conjugated to agarose (sc-25330 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-25330 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-25330 PE), fluorescein (sc-25330 FITC), Alexa Fluor® 488 (sc-25330 AF488), Alexa Fluor® 546 (sc-25330 AF546), Alexa Fluor® 594 (sc-25330 AF594) or Alexa Fluor® 647 (sc-25330 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-25330 AF680) or Alexa Fluor® 790 (sc-25330 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

**APPLICATIONS**

- Suitable for use as control antibody for Topo IIÎ² siRNA (h): sc-36697, Topo IIÎ² siRNA (m): sc-36698, Topo IIÎ² shRNA Plasmid (h): sc-36697-SH, Topo IIÎ² shRNA Plasmid (m): sc-36698-SH, Topo IIÎ² shRNA (h) Lentiviral Particles: sc-36697-V and Topo IIÎ² shRNA (m) Lentiviral Particles: sc-36698-V.
- Molecular Weight of Topo IIÎ²: 180 kDa.

**DATA**

Western blot analysis of Topo IIÎ² expression in U-937 (A), K-562 (B) and 3611-RF (C) nuclear extracts.

**SELECT PRODUCT CITATIONS**


**STORAGE**

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**RESEARCH USE**

For research use only, not for use in diagnostic procedures.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA