

Topo III β -1 (E-13): sc-11266

BACKGROUND

DNA topoisomerases are nuclear enzymes that regulate the topological structure of DNA by transiently breaking and rejoining DNA strands. Although DNA topoisomerase I (Topo I) and Topo II relax both positive and negative supercoils, Topo III relaxes only negative supercoils. Topo III α exists as a long and a short isoform, which are produced by alternative splicing. Topo III α , which localizes to the nucleolus, is constitutively expressed and remains at high levels throughout the cell cycle in HL-60 cells. Topo III β exists as three isoforms, β -1, β -2 and β -3, also produced by alternative splicing. Topo III β -1 is expressed in testis, heart, and skeletal muscle, whereas Topo III β -2 is expressed in thymus, kidney and pancreas.

CHROMOSOMAL LOCATION

Genetic locus: TOP3B (human) mapping to 22q11.22; Top3b (mouse) mapping to 16 A3.

SOURCE

Topo III β -1 (E-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Topo III β -1 of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-11266 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

Topo III β -1 (E-13) is recommended for detection of Topo III β -1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Topo III β -1 (E-13) is also recommended for detection of Topo III β -1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Topo III β siRNA (h): sc-36701, Topo III β siRNA (m): sc-36702, Topo III β shRNA Plasmid (h): sc-36701-SH, Topo III β shRNA Plasmid (m): sc-36702-SH, Topo III β shRNA (h) Lentiviral Particles: sc-36701-V and Topo III β shRNA (m) Lentiviral Particles: sc-36702-V.

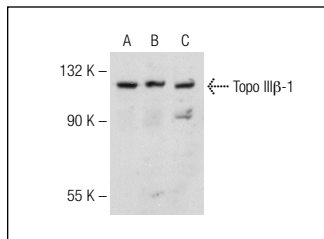
Molecular Weight of Topo III β -1: 100 kDa.

Positive Controls: Topo III β (m): 293T Lysate: sc-124216, K-562 whole cell lysate: sc-2203 or IMR-32 nuclear extract: sc-2148.

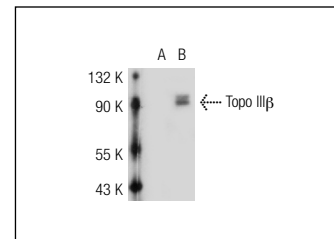
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Topo III β -1 (E-13): sc-11266. Western blot analysis of Topo III β -1 expression in IMR-32 nuclear extract (A), mouse testis tissue extract (B) and K-562 whole cell lysate (C).



Topo III β -1 (E-13): sc-11266. Western blot analysis of Topo III β expression in non-transfected: sc-117752 (A) and mouse Topo III β transfected: sc-124216 (B) 293T whole cell lysates.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



Try **Topo III β -1 (B-10): sc-137238**, our highly recommended monoclonal alternative to Topo III β -1 (E-13).