

Topo III β (m): 293T Lysate: sc-124216

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.

REFERENCES

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6. Lin, C.W., Darzynkiewicz, Z., Li, X., Traganos, F., Bedner, E. and Tse-Dinh, Y.C. 2000. Differential expression of human topoisomerase III α during the cell cycle progression in HL-60 leukemia cells and human peripheral blood lymphocytes. *Exp. Cell. Res.* 256: 225-236.

CHROMOSOMAL LOCATION

Genetic locus: Top3b (mouse) mapping to 16 B1.

PRODUCT

Topo III β (m): 293T Lysate represents a lysate of mouse Topo III β transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

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

APPLICATIONS

Topo III β (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive Topo III β antibodies. Recommended use: 10-20 μ l per lane.

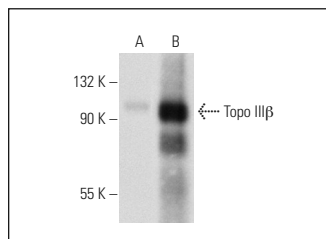
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Topo III β -1 (B-10): sc-137238 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse Topo III β expression in Topo III β transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



Topo III β -1 (B-10): sc-137238. 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.