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DNA Ligase III (h2): 293T Lysate: sc-117222

BACKGROUND

DNA ligase is a type of ligase that can link together DNA strands that have double-strand breaks. DNA ligase functions in both DNA repair and DNA replication. It is utilized in molecular biology laboratories for recombination experiments. In mammals, the four specific types of DNA ligase are known as DNA Ligase I, II, III and IV. DNA Ligase I ligates Okazaki fragments during lagging strand DNA replication and some recombinant fragments. DNA Ligase II is an alternatively spliced form of DNA Ligase III found in non-dividing cells. DNA Ligase III complexes with the DNA repair protein XRCC1 to function in sealing base excision mutations and recombinant fragments. DNA Ligase IV complexes with XRCC4 and catalyzes the final step in the non-homologous end joining DNA double-strand break repair pathway.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: LIG3 (human) mapping to 17q12.

PRODUCT

DNA Ligase III (h2): 293T Lysate represents a lysate of human DNA Ligase III 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.

APPLICATIONS

DNA Ligase III (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive DNA Ligase III antibodies. Recommended use: 10-20 μ l per lane.

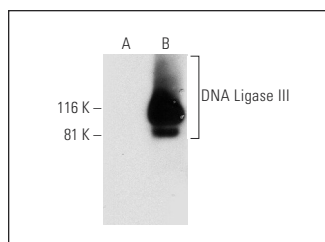
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

DNA Ligase III (E-7): sc-390922 is recommended as a positive control antibody for Western Blot analysis of enhanced human DNA Ligase III expression in DNA Ligase III 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



DNA Ligase III (E-7): sc-390922. Western blot analysis of DNA Ligase III expression in non-transfected: sc-117752 (A) and human DNA Ligase III transfected: sc-117222 (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 for detailed protocols and support products.