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Produktinformation

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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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SANTA CRUZ BIOTECHNOLOGY, INC.

DNA Ligase IV (h): 293T Lysate: sc-159741

BACKGROUND

The X-ray repair cross-complementing protein XRCC4 and DNA Ligase IV are essential for repairing double-strand breaks in DNA. These proteins form a critical complex consisting of two molecules of each protein that preferentially bind DNA with nicks or broken ends. As an obligate accessory molecule, XRCC4 binds to DNA Ligase IV and enhances its joining activity. The XRCC4/DNA Ligase IV complex is also involved in V(D)J recombination. V(D)J recombination occurs in normal development of the adaptive immune system and involves the formation of a double-strand break intermediate. Deletions of either DNA Ligase IV or XRCC4 inhibit the completion of V(D)J recombination, resulting in a high incidence of apoptosis in the developing nervous system and a block in B and T cell maturation.

REFERENCES

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3. Chen, L., et al. 2000. Interactions of the DNA Ligase IV/XRCC4 complex with DNA ends and the DNA-dependent protein kinase. J. Biol. Chem. 275: 26196-26205.
4. Lee, K.J., et al. 2000. DNA Ligase IV and XRCC4 form a stable mixed tetramer that functions synergistically with other repair factors in a cell-free end-joining system. J. Biol. Chem. 275: 34787-34796.
5. Junop, M.S., et al. 2000. Crystal structure of the XRCC4 DNA repair protein and implications for end-joining. EMBO J. 19: 5962-5970.
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7. Muylaert, I., et al. 2007. Knockdown of DNA Ligase IV/XRCC4 by RNA interference inhibits herpes simplex virus type I DNA replication. J. Biol. Chem. 282: 10865-10872.
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CHROMOSOMAL LOCATION

Genetic locus: LIG4 (human) mapping to 13q33.3.

PRODUCT

DNA Ligase IV (h): 293T Lysate represents a lysate of human DNA Ligase IV transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

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

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

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.

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.