ZBP1 (m): 293T Lysate: sc-127799



The Power to Question

BACKGROUND

Left-handed Z-DNA is a higher energy form of the double helix. Proteins containing $Z\alpha$ domains share a remarkable ability to bind specifically to Z-DNA and/or Z-RNA. ZBP1 (Z-DNA binding protein 1), also designated DLM-1, is a 429 amino acid protein that harbors two copies of the $Z\alpha$ domain containing the $Z\alpha$ motif at its N-terminus. ZBP1 is involved in host responses against cellular stresses, including tumorigenesis and viral infection. It is highly expressed in lymphatic tissues including leukocytes, lymph node, tonsil, bone marrow, spleen and, to a lesser extent, in thymus, lung and liver. There are five known isoforms of human ZBP1. The ZBP1 protein shares 47% and 46% sequence identity with the mouse and rat homologs, respectively. The mouse, rat and human ZBP1 proteins all contain four conserved regions, two of which are homologous to the Z-DNA binding domains $Z\alpha$ and $Z\beta$ of the RNA editing enzyme ADAR1.

REFERENCES

- Rich, A., Nordheim, A. and Wang, A.H. 1984. The chemistry and biology of left-handed Z-DNA. Annu. Rev. Biochem. 53: 791-846.
- Schwartz, T., Rould, M.A., Lowenhaupt, K., Herbert, A. and Rich, A. 1999. Crystal structure of the Zα domain of the human editing enzyme ADAR1 bound to left-handed Z-DNA. Science 284: 1841-1845.
- Fu, Y., Comella, N., Tognazzi, K., Brown, L.F., Dvorak, H.F. and Kocher, O. 2000. Cloning of DLM-1, a novel gene using RNA differential display. Gene 240: 157-163.
- Rothenburg, S., Schwartz, T., Koch-Nolte, F. and Haag, F. 2002. Complex regulation of the human gene for the Z-DNA binding protein DLM-1. Nucleic Acids Res. 30: 993-1000.
- Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 606750. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/

CHROMOSOMAL LOCATION

Genetic locus: Zbp1 (mouse) mapping to 2 H3.

PRODUCT

ZBP1 (m): 293T Lysate represents a lysate of mouse ZBP1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

ZBP1 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive ZBP1 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 or our catalog for detailed protocols and support products.

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3801 Fax 831.457.3801 Europe +00800 4573 8000 49 6221 4503 0 www.scbt.com