

ZBP1 (V-14): sc-50691



The Power to Question

BACKGROUND

Left-handed Z-DNA is a higher energy form of the double helix. Proteins containing Z α 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 2 copies of the Z α domain containing the Z α 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 α and Z β of the RNA editing enzyme ADAR1.

REFERENCES

1. Rich, A., Nordheim, A. and Wang, A.H. 1984. The chemistry and biology of left-handed Z-DNA. *Annu. Rev. Biochem.* 53: 791-846.
2. Schwartz, T., Rould, M.A., Lowenhaupt, K., Herbert, A. and Rich, A. 1999. Crystal structure of the Z α domain of the human editing enzyme ADAR1 bound to left-handed Z-DNA. *Science* 284: 1841-1845.
3. 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.
4. 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.
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CHROMOSOMAL LOCATION

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

SOURCE

ZBP1 (V-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ZBP1 of mouse 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-50691 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

ZBP1 (V-14) is recommended for detection of ZBP1 of mouse and rat 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).

Suitable for use as control antibody for ZBP1 siRNA (m): sc-61823, ZBP1 shRNA Plasmid (m): sc-61823-SH and ZBP1 shRNA (m) Lentiviral Particles: sc-61823-V.

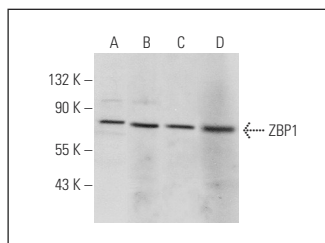
Molecular Weight of ZBP1: 46 kDa.

Positive Controls: LADMAC whole cell lysate: sc-364189, rat liver extract: sc-2395 or mouse liver extract: sc-2256.

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



ZBP1 (V-14): sc-50691. Western blot analysis of ZBP1 expression in LADMAC whole cell lysate (A) and mouse liver (B), rat liver (C) and mouse spleen (D) tissue extracts.

RESEARCH USE

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

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Try **ZBP1 (H-9): sc-271483**, our highly recommended monoclonal alternative to ZBP1 (V-14).