

ZBP-89 (E-7): sc-137169



The Power to Question

BACKGROUND

ZBP-89, also known as BFCOL1, BERF1 and ZNF 148, is a zinc finger transcription factor that is universally expressed. ZBP-89, a Krüppel-like repressor protein, is the silencer element binding factor for Vimentin. ZBP-89 has been shown to bind to GC-rich DNA elements in promoters for gastrin, ornithine decarboxylase and the cyclin-dependent kinase inhibitor p21 (also designated Cip1 or WAF1). ZBP-89 expression is induced by *trans*-retinoic acid or butyrate, which also induces terminal differentiation of colon cancer cells. ZBP-89 cooperates with histone acetyltransferase coactivator p300 in the regulation of p21, a cyclin-dependent kinase inhibitor whose associated gene is a target gene of p53. ZBP-89 also regulates cell proliferation, in part, through its ability to directly bind the p53 protein and retard its nuclear export. Elevated levels of ZBP-89 induce growth arrest and apoptosis in human gastrointestinal cells.

REFERENCES

1. Taniuchi, T., Mortensen, E.R., Ferguson, A., Greenson, J. and Merchant, J.L. 1997. Overexpression of ZBP-89, a zinc finger DNA binding protein, in gastric cancer. *Biochem. Biophys. Res. Commun.* 233: 154-160.
2. Wiczorek, E., Lin, Z., Perkins, E.B., Law, D.J., Merchant, J.L. and Zehner, Z.E. 2000. The zinc finger repressor, ZBP-89, binds to the silencer element of the human Vimentin gene and complexes with the transcriptional activator, Sp1. *J. Biol. Chem.* 275: 12879-12888.
3. Bai, L. and Merchant, J. 2001. ZBP-89 promotes growth arrest through stabilization of p53. *Mol. Cell. Biol.* 21: 4670-4683.
4. Yamada, A., Takaki, S., Hayashi, F., Georgopoulos, K., Perlmutter, R.M. and Takatsu, K. 2001. Identification and characterization of a transcriptional regulator for the Lck proximal promoter. *J. Biol. Chem.* 276: 18082-18089.

CHROMOSOMAL LOCATION

Genetic locus: ZNF148 (human) mapping to 3q21.2; Zfp148 (mouse) mapping to 16 B3.

SOURCE

ZBP-89 (E-7) is a mouse monoclonal antibody raised against amino acids 611-794 mapping at the C-terminus of ZBP-89 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-137169 X, 200 µg/0.1 ml.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

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

APPLICATIONS

ZBP-89 (E-7) is recommended for detection of ZBP-89 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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 ZBP-89 siRNA (h): sc-38639, ZBP-89 siRNA (m): sc-38640, ZBP-89 shRNA Plasmid (h): sc-38639-SH, ZBP-89 shRNA Plasmid (m): sc-38640-SH, ZBP-89 shRNA (h) Lentiviral Particles: sc-38639-V and ZBP-89 shRNA (m) Lentiviral Particles: sc-38640-V.

ZBP-89 (E-7) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

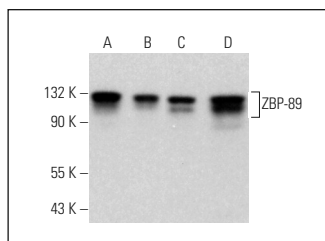
Molecular Weight of ZBP-89: 115 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, EOC 20 whole cell lysate: sc-364187 or c4 whole cell lysate: sc-364186.

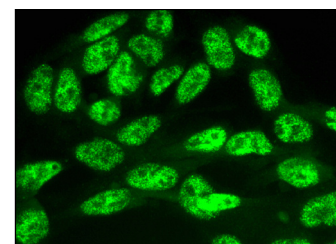
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



ZBP-89 (E-7): sc-137169. Western blot analysis of ZBP-89 expression in Hep G2 (A), EOC 20 (B), c4 (C) and C6 (D) whole cell lysates.



ZBP-89 (E-7): sc-137169. Immunofluorescence staining of formalin-fixed Hep G2 cells showing nuclear localization.

RESEARCH USE

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