

# ZBP-89 (H-7): sc-137171



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.

## CHROMOSOMAL LOCATION

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

## SOURCE

ZBP-89 (H-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 IgG<sub>1</sub> 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-137171 X, 200 µg/0.1 ml.

ZBP-89 (H-7) is available conjugated to agarose (sc-137171 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-137171 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-137171 PE), fluorescein (sc-137171 FITC), Alexa Fluor® 488 (sc-137171 AF488), Alexa Fluor® 546 (sc-137171 AF546), Alexa Fluor® 594 (sc-137171 AF594) or Alexa Fluor® 647 (sc-137171 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-137171 AF680) or Alexa Fluor® 790 (sc-137171 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

## APPLICATIONS

ZBP-89 (H-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), immunohistochemistry (including paraffin-embedded sections) (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.

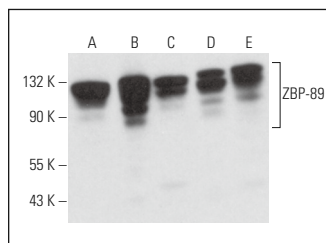
ZBP-89 (H-7) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of ZBP-89: 115 kDa.

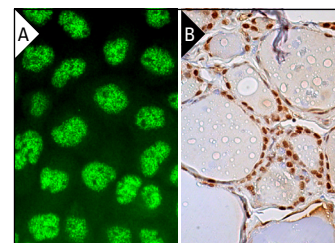
## RECOMMENDED SUPPORT REAGENTS

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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

## DATA



ZBP-89 (H-7): sc-137171. Western blot analysis of ZBP-89 expression in HeLa (A), A-431 (B), c4 (C), Neuro-2A (D) and C6 (E) whole cell lysates.



ZBP-89 (H-7): sc-137171. Immunofluorescence staining of formalin-fixed A-431 cells showing nuclear localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human thyroid gland tissue showing nuclear staining of glandular cells (B).

## SELECT PRODUCT CITATIONS

- Nair, S., et al. 2014. Nicotine-mediated invasion and migration of non-small cell lung carcinoma cells by modulating STMN3 and GSPT1 genes in an ID1-dependent manner. *Mol. Cancer* 13: 173.
- Bu, Y., et al. 2014. Protein tyrosine phosphatase PTPN9 regulates erythroid cell development through STAT3 dephosphorylation in zebrafish. *J. Cell Sci.* 127: 2761-2770.
- Yao, X., et al. 2024. ZNF148 inhibits HBV replication by downregulating RXRα transcription. *Viol. J.* 21: 35.

## STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. 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](http://www.scbt.com) for detailed protocols and support products.

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