

MZF-1 (H-45): sc-66991

BACKGROUND

Zinc finger genes encode metal-binding proteins are transcriptional regulators of other genes. Myeloid zinc finger 1 (MZF-1), also designated zinc finger protein 42, and transcription factor ZBP-89, also designated zinc finger protein 148, belong to the Krüppel C₂H₂-type zinc-finger protein family. The gene encoding for the MZF-1 protein maps to chromosome 19q13.43, while the gene encoding for ZBP-89 is localized on chromosome 3q21.2. These proteins are nuclear proteins involved in the regulation of transcriptional events. MZF-1 regulates transcription during hemopoietic development and plays a role in myeloid cell differentiation. It regulates the CD34 promoter in a tissue-specific manner. MZF-1 and FHL3 can form a complex of high molecular mass with other proteins in the nucleus. MZF-1 is induced by retinoic acid and is primarily expressed in differentiating myeloid cells.

REFERENCES

1. Hromas, R., et al. 1991. A retinoic acid-responsive human zinc finger gene, MZF-1, preferentially expressed in myeloid cells. *J. Biol. Chem.* 266: 14183-14187.
2. Morris, J.F., et al. 1995. The myeloid zinc finger gene, MZF-1, regulates the CD34 promoter *in vitro*. *Blood* 86: 3640-3647.

CHROMOSOMAL LOCATION

Genetic locus: ZNF42 (human) mapping to 19q13.43.

SOURCE

MZF-1 (H-45) is a rabbit polyclonal antibody raised against amino acids 201-245 mapping within an internal region of MZF-1 of human origin.

PRODUCT

Each vial contains 200 µg IgG 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-66991 X, 200 µg/0.1 ml.

APPLICATIONS

MZF-1 (H-45) is recommended for detection of MZF-1 of human origin by Western Blotting (starting dilution 1:200, 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 MZF-1 siRNA (h): sc-45714, MZF-1 shRNA Plasmid (h): sc-45714-SH and MZF-1 shRNA (h) Lentiviral Particles: sc-45714-V.

MZF-1 (H-45) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

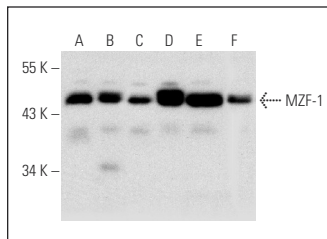
Molecular Weight of MZF1A (MZF1B)/MZF1B-C isoforms: 82/54 kDa.

Positive Controls: HeLa nuclear extract: sc-2120, K-562 nuclear extract: sc-2130 or Jurkat nuclear extract: sc-2132.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



MZF-1 (H-45): sc-66991. Western blot analysis of MZF-1 expression in K-562 (A), HeLa (B), Ramos (C), Jurkat (D) and HEL 92.1.7 (E) nuclear extracts and Raji whole cell lysate (F).

SELECT PRODUCT CITATIONS

1. Albers, C.A., et al. 2012. Compound inheritance of a low-frequency regulatory SNP and a rare null mutation in exon-junction complex subunit RBM8A causes TAR syndrome. *Nat. Genet.* 44: 435-439, S1-S2.
2. Chen, Y., et al. 2014. Myeloid zinc-finger 1 (MZF-1) suppresses prostate tumor growth through enforcing ferroportin-conducted iron egress. *Oncogene*. E-Published.

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 or our catalog for detailed protocols and support products.

MONOS
Satisfaction
Guaranteed

Try **MZF-1 (1F7): sc-293218**, our highly recommended monoclonal alternative to MZF-1 (H-45).