

ZFAT (E-9): sc-398058

BACKGROUND

Zinc-finger proteins contain DNA-binding domains and have a wide variety of functions, most of which encompass some form of transcriptional activation or repression. The majority of zinc-finger proteins contain a Krüppel-type DNA binding domain and a KRAB domain, which is thought to interact with KAP1, thereby recruiting histone modifying proteins. Zinc finger protein ZFAT, also known as Zinc finger protein 406, is a 1,243 amino acid protein that contains 19 C₂H₂-type zinc fingers. Single-nucleotide polymorphisms (SNPs) within the gene encoding ZFAT may be associated with susceptibility to autoimmune thyroid disease. Overexpression of ZFAT causes downregulation of many genes that are involved in the immune response. ZFAT is strongly expressed in kidney, testis, ovary, tonsil, placenta, spleen and peripheral blood leukocytes. There are three isoforms of ZFAT that are produced as a result of alternative splicing events.

REFERENCES

- Klug, A. 1999. Zinc finger peptides for the regulation of gene expression. *J. Mol. Biol.* 293: 215-218.
- Shirasawa, S., et al. 2004. SNPs in the promoter of a B cell-specific anti-sense transcript, SAS-ZFAT, determine susceptibility to autoimmune thyroid disease. *Hum. Mol. Genet.* 13: 2221-2231.
- Hall, T.M. 2005. Multiple modes of RNA recognition by zinc finger proteins. *Curr. Opin. Struct. Biol.* 15: 367-373.
- Shirasawa, S. 2006. Susceptibility genes for the development of autoimmune thyroid disease. *Nippon Rinsho* 64: 2208-2214.
- Online Mendelian Inheritance in Man, OMIM[™]. 2007. Johns Hopkins University, Baltimore, MD. MIM Number: 610931. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

CHROMOSOMAL LOCATION

Genetic locus: ZFAT (human) mapping to 8q24.22; Zfat (mouse) mapping to 15 D2.

SOURCE

ZFAT (E-9) is a mouse monoclonal antibody raised against amino acids 16-290 mapping near the N-terminus of ZFAT 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-398058 X, 200 µg/0.1 ml.

ZFAT (E-9) is available conjugated to agarose (sc-398058 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398058 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398058 PE), fluorescein (sc-398058 FITC), Alexa Fluor[®] 488 (sc-398058 AF488), Alexa Fluor[®] 546 (sc-398058 AF546), Alexa Fluor[®] 594 (sc-398058 AF594) or Alexa Fluor[®] 647 (sc-398058 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-398058 AF680) or Alexa Fluor[®] 790 (sc-398058 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

ZFAT (E-9) is recommended for detection of ZFAT 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 ZFAT siRNA (h): sc-77821, ZFAT siRNA (m): sc-155515, ZFAT shRNA Plasmid (h): sc-77821-SH, ZFAT shRNA Plasmid (m): sc-155515-SH, ZFAT shRNA (h) Lentiviral Particles: sc-77821-V and ZFAT shRNA (m) Lentiviral Particles: sc-155515-V.

ZFAT (E-9) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

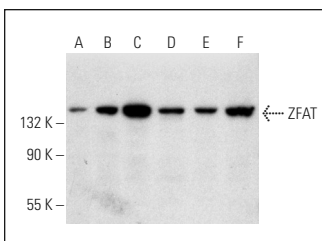
Molecular Weight of ZFAT: 139 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Jurkat whole cell lysate: sc-2204 or Raji whole cell lysate: sc-364236.

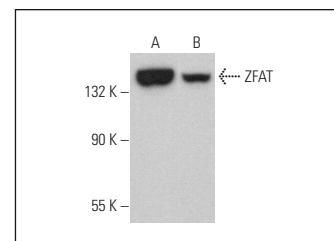
RECOMMENDED SUPPORT REAGENTS

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



ZFAT (E-9): sc-398058. Western blot analysis of ZFAT expression in LADMAC (A), Raji (B), Jurkat (C), NTERA-2 cl.D1 (D), Hs 181 Tes (E) and HeLa (F) whole cell lysates.



ZFAT (E-9): sc-398058. Western blot analysis of ZFAT expression in K-562 (A) and C2C12 (B) whole cell lysates.

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.

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