

FOXP3 (F-9): sc-166212

BACKGROUND

The FOX family of transcription factors is a large group of proteins that share a common DNA binding domain termed a winged-helix or forkhead domain. During early development, FOXP1 and FOXP2 are expressed abundantly in the lung, with lower levels of expression in neural, intestinal and cardiovascular tissues, where they act as transcription repressors. FOXP1 is widely expressed in adult tissues, while neoplastic cells often exhibit a dramatic change in expression level or localization of FOXP1. The gene encoding human FOXP1 maps to chromosome 3p13, and the gene encoding human FOXP2 maps to chromosome 7q31.1. The gene encoding FOXP3, a third member of this family, maps to chromosome Xp11.23. Mutations in this gene cause IPEX, a fatal, X-linked inherited disorder characterized by immune dysregulation. The FOXP3 protein, also known as scurf, is essential for normal immune homeostasis. Specifically, FOXP3 represses transcription through a DNA binding forkhead domain, thereby regulating T cell activation.

REFERENCES

- Lai, C.S., et al. 2000. The SPCH1 region on human 7q31: genomic characterization of the critical interval and localization of translocations associated with speech and language disorder. *Am. J. Hum. Genet.* 67: 357-368.
- Banham, A.H., et al. 2001. The FOXP1 winged helix transcription factor is a novel candidate tumor suppressor gene on chromosome 3p. *Cancer Res.* 61: 8820-8829.

CHROMOSOMAL LOCATION

Genetic locus: FOXP3 (human) mapping to Xp11.23; Foxp3 (mouse) mapping to X A1.1.

SOURCE

FOXP3 (F-9) is a mouse monoclonal antibody raised against amino acids 107-190 mapping near the N-terminus of FOXP3 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-166212 X, 200 µg/0.1 ml.

FOXP3 (F-9) is available conjugated to agarose (sc-166212 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-166212 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-166212 PE), fluorescein (sc-166212 FITC), Alexa Fluor® 488 (sc-166212 AF488), Alexa Fluor® 546 (sc-166212 AF546), Alexa Fluor® 594 (sc-166212 AF594) or Alexa Fluor® 647 (sc-166212 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-166212 AF680) or Alexa Fluor® 790 (sc-166212 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

STORAGE

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

APPLICATIONS

FOXP3 (F-9) is recommended for detection of FOXP3 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).

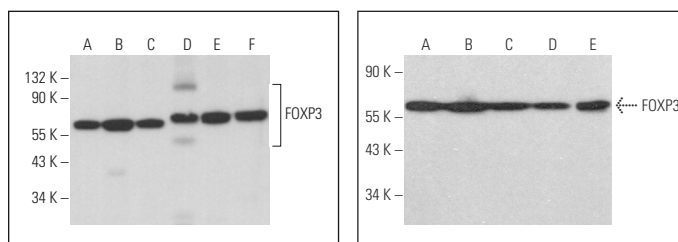
Suitable for use as control antibody for FOXP3 siRNA (h): sc-43569, FOXP3 siRNA (m): sc-45646, FOXP3 siRNA (r): sc-270590, FOXP3 shRNA Plasmid (h): sc-43569-SH, FOXP3 shRNA Plasmid (m): sc-45646-SH, FOXP3 shRNA Plasmid (r): sc-270590-SH, FOXP3 shRNA (h) Lentiviral Particles: sc-43569-V, FOXP3 shRNA (m) Lentiviral Particles: sc-45646-V and FOXP3 shRNA (r) Lentiviral Particles: sc-270590-V.

FOXP3 (F-9) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of FOXP3: 48 kDa.

Positive Controls: CCRF-CEM cell lysate: sc-2225, RAW 264.7 whole cell lysate: sc-2211 or Jurkat whole cell lysate: sc-2204.

DATA



FOXP3 (F-9): sc-166212. Western blot analysis of FOXP3 expression in HeLa (A), Jurkat (B), SP2/0 (C), NIH/3T3 (D) and RAW 264.7 (E) whole cell lysates and rat spleen tissue extract (F).

FOXP3 (F-9): sc-166212. Western blot analysis of FOXP3 expression in HeLa (A), CCRF-CEM (B), A-375 (C), A549 (D) and Jurkat (E) whole cell lysates.

SELECT PRODUCT CITATIONS

- Xie, M.Q., et al. 2011. Modulation of immune tolerance with a Chinese traditional prescription inhibits allergic rhinitis in mice. *N. Am. J. Med. Sci.* 3: 503-507.
- Xu, L., et al. 2011. Glioma-derived T cell immunoglobulin- and mucin domain-containing molecule-4 (TIM4) contributes to tumor tolerance. *J. Biol. Chem.* 286: 36694-36699.
- Gogulamudi, V.R., et al. 2019. Genetic disruption of Npr1 depletes T regulatory cells and provokes high levels of proinflammatory cytokines and fibrosis in the kidneys of female mutant mice. *Am. J. Physiol. Renal Physiol.* 316: F1254-F1272.
- Skretting, G., et al. 2019. Transcription factor FOXP3: a repressor of the TFPI gene? *J. Cell. Biochem.* 120: 12924-12936.

RESEARCH USE

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