SANTA CRUZ BIOTECHNOLOGY, INC.

FOXP3 (N-12): sc-21072

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 3p14.1. The gene encoding human FOXP2 maps to chromosome 7q31. 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 scurfin, is essential for normal immune homeostasis. Specifically, FOXP3 represses transcription through a DNA binding forkhead domain, thereby regulating T cell activation.

CHROMOSOMAL LOCATION

Genetic locus: FOXP3 (human) mapping to Xp11.23.

SOURCE

FOXP3 (N-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of FOXP3 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.

Blocking peptide available for competition studies, sc-21072 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as agarose conjugate for immunoprecipitation, sc-21072 AC, 500 µg/0.25 ml agarose in 1 ml.

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-21072 X, 200 µg/0.1 ml.

APPLICATIONS

FOXP3 (N-12) is recommended for detection of FOXP3 of human and, to a lesser extent, rat 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 FOXP3 siRNA (h): sc-43569, FOXP3 shRNA Plasmid (h): sc-43569-SH and FOXP3 shRNA (h) Lentiviral Particles: sc-43569-V.

FOXP3 (N-12) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

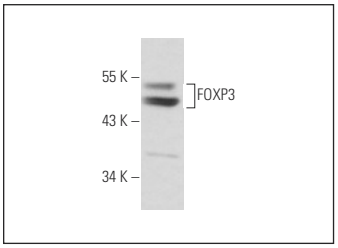
Molecular Weight of FOXP3: 48 kDa.

Positive Controls: human brain hippocampus extract: sc-364375.

STORAGE

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

DATA



FOXP3 (N-12): sc-21072. Western blot analysis of FOXP3 expression in human brain tissue extract.

SELECT PRODUCT CITATIONS

1. de Almeida, D.E., et al. 2008. Antigen-specific regulatory T cells in bovine paratuberculosis. Vet. Immunol. Immunopathol. 125: 234-245.
2. Qian, B.F., et al. 2008. Reduced responsiveness of HLA-B27 transgenic rat cells to TGFβ and IL-10-mediated regulation of IFN-γ production. Inflamm. Bowel Dis. 14: 921-930.
3. Tonelli, R.R., et al. 2010. *In vivo* infection by *Trypanosoma cruzi:* The conserved FLY domain of the gp85*/trans*-sialidase family potentiates host infection. Parasitology 138: 481-492.
4. Chung, B.H., et al. 2011. Higher infiltration by Th17 cells compared with regulatory T cells is associated with severe acute T-cell-mediated graft rejection. Exp. Mol. Med. 43: 630-637.
5. Chung, B.H., et al. 2012. Clinical significance of the ratio between FOXP3 positive regulatory T cell and interleukin-17 secreting cell in renal allograft biopsies with acute T-cell-mediated rejection. Immunology 136: 344-351.

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.