SANTA CRUZ BIOTECHNOLOGY, INC.

FOXP3 (H-190): sc-28705

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 7q31.1. 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 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; Foxp3 (mouse) mapping to X A1.1.

SOURCE

FOXP3 (H-190) is a rabbit polyclonal antibody raised against amino acids 107-190 mapping at 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.

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-28705 X, 200 µg/0.1 ml.

APPLICATIONS

FoxP3 (H-190) is recommended for detection of FoxP3 of mouse, rat and 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).

FOXP3 (H-190) is also recommended for detection of FOXP3 in additional species, including equine, bovine and porcine.

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

FoxP3 (H-190) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

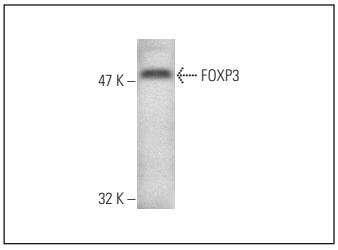
Molecular Weight of FOXP3: 48 kDa.

Positive Controls: rat brain extract: sc-2392, mouse brain extract: sc-2253 or RAW 264.7 nuclear extract: sc-24961.

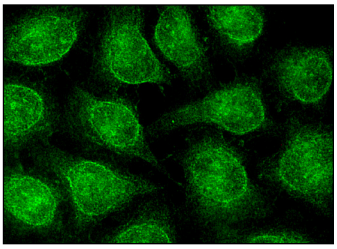
STORAGE

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

DATA



FOXP3 (H-190): sc-28705. Western blot analysis of FOXP3 expression in RAW 264.7 nuclear extract.



FOXP3 (H-190): sc-28705. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear localization.

SELECT PRODUCT CITATIONS

1. Scottà, C., et al. 2008. FOXP3 induced by CD28/B7 interaction regulates CD25 and anergic phenotype in human $CD4^{+}CD25^{-}$ T lymphocytes. J. Immunol. 181: 1025-1033.
2. Lin, X.G., et al. 2010. Pregnancy estrogen drives the changes of T-lymphocyte subsets and cytokines and prolongs the survival of H-Y skin graft in murine model. Chin. Med. J. 123: 2593-2599.
3. Chu, S., et al. 2011. The expression of Foxp3 and ROR γ t in lung tissues from normal smokers and chronic obstructive pulmonary disease patients. Int. Immunopharmacol. 11:1780-1788.
4. Almolda, B., et al. 2011. Increase in Th17 and T-reg lymphocytes and decrease of IL22 correlate with the recovery phase of acute EAE in rat. PLoS ONE 6: e27473.
5. Papiez, P., et al. 2011. Expression of Foxp3 and RORγ t in peripheral blood mononuclear cells in patients with laryngeal carcinoma as indicators of tumor stage—preliminary study. Otolaryngol. Pol. 65: 109-116.
6. Liu, W.H. and Chang, L.S. 2012. Suppression of Akt/FOXP3-mediated miR-183 expression blocks Sp1-mediated ADAM17 expression and TNFα-mediated NFκB activation in piceatannol-treated human leukemia U937 cells. Biochem. Pharmacol. 84: 670-680.
7. Held-Feindt, J., et al. 2013. The transcription factor Forkhead box P3 (FOXP3) is expressed in glioma cells and associated with increased apoptosis. Exp. Cell Res. 319: 731-739.

RESEARCH USE

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