

FOXP2 (H-90): sc-66897

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.

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.
- Bennett, C.L., et al. 2001. The immune dysregulation, polyendocrinopathy, enteropathy, X-linked syndrome (IPEX) is caused by mutations of FOXP3. *Nat. Genet.* 27: 20-21.
- Shu, W., et al. 2001. Characterization of a new subfamily of winged-helix/forkhead (Fox) genes that are expressed in the lung and act as transcriptional repressors. *J. Biol. Chem.* 276: 27488-27497.
- Brunkow, M.E., et al. 2001. Disruption of a new forkhead/winged-helix protein, scurfin, results in the fatal lymphoproliferative disorder of the scurfy mouse. *Nat. Genet.* 27: 68-73.

CHROMOSOMAL LOCATION

Genetic locus: FOXP2 (human) mapping to 7q31.1; Foxp2 (mouse) mapping to 6 A1.

SOURCE

FOXP2 (H-90) is a rabbit polyclonal antibody raised against amino acids 583-672 mapping near the C-terminus of FOXP2 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-66897 X, 200 µg/0.1 ml.

RESEARCH USE

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

APPLICATIONS

FOXP2 (H-90) is recommended for detection of FOXP2 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

FOXP2 (H-90) is also recommended for detection of FOXP2 in additional species, including equine, canine, bovine, porcine and avian.

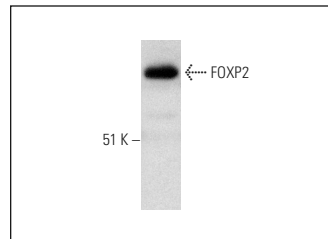
Suitable for use as control antibody for FOXP2 siRNA (h): sc-43770, FOXP2 siRNA (m): sc-60659, FOXP2 shRNA Plasmid (h): sc-43770-SH, FOXP2 shRNA Plasmid (m): sc-60659-SH, FOXP2 shRNA (h) Lentiviral Particles: sc-43770-V and FOXP2 shRNA (m) Lentiviral Particles: sc-60659-V.

FOXP2 (H-90) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

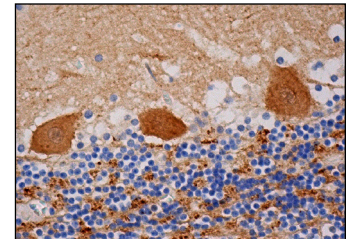
Molecular Weight of FOXP2: 70-75 kDa.

Positive Controls: mouse cerebellum extract: sc-2403.

DATA



FOXP2 (H-90): sc-66897. Western blot analysis of FOXP2 expression in mouse cerebellum tissue extract.



FOXP2 (H-90): sc-66897. Immunoperoxidase staining of formalin fixed, paraffin-embedded human cerebellum tissue showing nuclear and cytoplasmic staining of Purkinje cells and cytoplasmic staining of cells in molecular layer.

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



Try **FOXP2 (5C11A8): sc-517193**, our highly recommended monoclonal alternative to FOXP2 (H-90).