

FOXP2 (N-16): sc-21069

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. 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-Xq13.3. 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 a transcription through a DNA binding forkhead domain, thereby regulating T cell activation.

CHROMOSOMAL LOCATION

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

SOURCE

FOXP2 (N-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-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-21069 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-21069 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

FOXP2 (N-16) is recommended for detection of FOXP2 isoforms I and II of human origin and FOXP2 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

FOXP2 (N-16) is also recommended for detection of FOXP2 isoforms I and II 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 (N-16) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

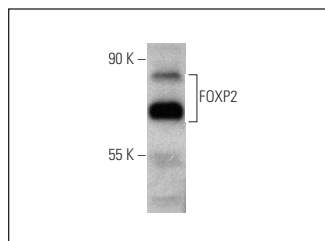
Molecular Weight of FOXP2: 70-75 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

STORAGE

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

DATA



FOXP2 (N-16): sc-21069. Western blot analysis of FOXP2 expression in Jurkat whole cell lysate.

SELECT PRODUCT CITATIONS

- Hack, I., et al. 2007. Divergent roles of ApoE2 and VLDLR in the migration of cortical neurons. *Development* 134: 3883-3891.
- French, C.A., et al. 2007. Generation of mice with a conditional Foxp2 null allele. *Genesis* 45: 440-446.
- Soderstrom, K., et al. 2010. Late-postnatal cannabinoid exposure persistently increases FoxP2 expression within zebra finch striatum. *Dev. Neurobiol.* 70: 195-203.
- Peschansky, V.J., et al. 2010. The effect of variation in expression of the candidate dyslexia susceptibility gene homolog Kiaa0319 on neuronal migration and dendritic morphology in the rat. *Cereb. Cortex* 20: 884-897.
- Reimers-Kipping, S., et al. 2011. Humanized Foxp2 specifically affects cortico-basal ganglia circuits. *Neuroscience* 175: 75-84.
- Rosen, G.D., et al. 2013. Bilateral subcortical heterotopia with partial callosal agenesis in a mouse mutant. *Cereb. Cortex* 23: 859-872.
- Phillmore, L.S., et al. 2015. Effects of sex and seasonality on the song control system and FoxP2 protein expression in black-capped chickadees (*Parus atricapillus*). *Dev. Neurobiol.* 75: 203-216.
- Abdi, A., et al. 2015. Prototypic and arkypallidal neurons in the dopamine-intact external globus pallidus. *J. Neurosci.* 35: 6667-6688.

RESEARCH USE

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

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Try **FOXP2 (5C11A8): sc-517193**, our highly recommended monoclonal alternative to FOXP2 (N-16).