Revision 1

FoxP1 Antibody

#2005 Store at -20C

Cell Signaling TECHNOLOGY®

Orders: 877-616-CELL (2355)
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Web: info@cellsignal.com
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3 Trask Lane | Danvers | Massachusetts | 01923 | USA

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP, IHC-P, IF-IC, FC-FP	H M	Endogenous	82-90	Rabbit	#Q9H334	27086

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	1:50
Immunohistochemistry (Paraffin)	1:800
Immunofluorescence (Immunocytochemistry)	1:800
Flow Cytometry (Fixed/Permeabilized)	1:200

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. Do not aliquot the antibody.

Specificity/Sensitivity

FoxP1 Antibody detects endogenous level of total FoxP1 protein.

Species predicted to react based on 100% sequence homology

Rat

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Asp666 of human FoxP1. Antibodies are purified by protein A and peptide affinity chromatography.

Background

Forkhead box (Fox) proteins are a family of evolutionarily conserved transcription factors containing a sequence known as Forkhead box or winged helix DNA binding domain (1). The human genome contains 43 Fox proteins that are divided into subfamilies. The FoxP subfamily has four members, FoxP1 - FoxP4, which are broadly expressed and play important roles in organ development, immune response and cancer pathogenesis (2-4). The FoxP subfamily has several characteristics that are atypical among Fox proteins: their Forkhead domain is located at the carboxy-terminal region and they contain motifs that promote homo- and heterodimerization. FoxP proteins usually function as transcriptional repressors (4,5).
FoxP1 plays an important role in cardiac valve and B cell development. Targeted deletion of FoxP1 in mice results in embryonic death at E14.5 with severe defects in cardiac outflow development, endocardial cushion morphogenesis, and myocyte proliferation and maturation (6). The FoxP1 gene is located on chromosome 3p14.1 and loss of heterozygosity of this region in multiple cancer types suggests a role for Foxp1 as a tumor suppressor (7). On the other hand, FoxP1 is highly expressed in a variety of B cell malignancies and is frequently involved in chromosome translocation, suggesting that FoxP1 may also act as an oncogene (8,9).

Background References

1. Myatt, S.S. and Lam, E.W. (2007) *Nat Rev Cancer* 7, 847-59.
2. Shu, W. et al. (2001) *J Biol Chem* 276, 27488-97.
3. Lu, M.M. et al. (2002) *Gene Expr Patterns* 2, 223-8.
4. Koon, H.B. et al. (2007) *Expert Opin Ther Targets* 11, 955-65.
5. Li, S. et al. (2004) *Mol Cell Biol* 24, 809-22.
6. Wang, B. et al. (2004) *Development* 131, 4477-87.
7. Banham, A.H. et al. (2001) *Cancer Res* 61, 8820-9.
8. Wlodarska, I. et al. (2005) *Leukemia* 19, 1299-305.
9. Goatly, A. et al. (2008) *Mod Pathol* 21, 902-11.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IP:** Immunoprecipitation **IHC-P:** Immunohistochemistry (Paraffin) **IF-IC:** Immunofluorescence (Immunocytochemistry) **FC-FP:** Flow Cytometry (Fixed/Permeabilized)

Cross-Reactivity Key

H: Human **M:** Mouse

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Limited Uses