

#4402 Store at -20°C

FoxP1 (D35D10) XP® Rabbit mAb



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

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, IP, IHC-P, FC-FP, ChIP, C&R	H M R Mk	Endogenous	82-90	Rabbit IgG	#Q9H334	27086

Product Usage Information

For optimal ChIP or ChIP-seq results, use 5 µl of antibody and 10 µg of chromatin (approximately 4 x 10⁶ cells) per IP. This antibody has been validated using SimpleChIP® Enzymatic Chromatin IP Kits.

The CUT&RUN dilution was determined using CUT&RUN Assay Kit #86652.

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	1:200
Immunohistochemistry (Paraffin)	1:100
Flow Cytometry (Fixed/Permeabilized)	1:50
Chromatin IP	1:100
CUT&RUN	1:50

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

For a carrier free (BSA and azide free) version of this product see product #85650.

Specificity / Sensitivity

FoxP1 (D35D10) XP® Rabbit mAb detects endogenous levels of total FoxP1 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Leu584 of human FoxP1 protein.

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). Alternatively, FoxP1 may also act as an oncogene as it is highly expressed in a variety of B cell malignancies and is frequently involved in chromosome translocation (8,9).

Background References

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- Shu, W. et al. (2001) *J Biol Chem* 276, 27488-97.
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- Koon, H.B. et al. (2007) *Expert Opin Ther Targets* 11, 955-65.
- Li, S. et al. (2004) *Mol Cell Biol* 24, 809-22.
- Wang, B. et al. (2004) *Development* 131, 4477-87.
- Banham, A.H. et al. (2001) *Cancer Res* 61, 8820-9.
- Wlodarska, I. et al. (2005) *Leukemia* 19, 1299-305.
- 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

WB: Western Blotting **IP:** Immunoprecipitation **IHC-P:** Immunohistochemistry (Paraffin)
FC-FP: Flow Cytometry (Fixed/Permeabilized) **ChIP:** Chromatin IP **C&R:** CUT&RUN

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster
X: Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse
GP: Guinea Pig **Rab:** rabbit **All:** all species expected

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