BOSTER BIOLOGICAL TECHNOLOGY
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Anti-Forkhead box protein P3 FOXP3 Antibody

Catalog Number: RP1032

About FOXP3

FOXP3 (forkhead box P3) is a protein involved in immune system responses. The human FOXP3 genes contain 11 coding exons. Exon-intron boundaries are identical across the coding regions of the mouse and human genes. By genomic sequence analysis, the FOXP3 gene maps to the p arm of the X chromosome (specifically, Xp11.23). A member of the FOX protein family, FOXP3 appears to function as a master regulator in the development and function of regulatory T cells. While the precise control mechanism has not yet been established, FOX proteins belong to the forkhead/winged-helix family of transcriptional regulators and are presumed to exert control via similar DNA binding interactions during transcription.

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Overview

Product Name	Anti-Forkhead box protein P3 FOXP3 Antibody
Reactive Species	Human
Description	Boster Bio Anti-Forkhead box protein P3 FOXP3 Antibody catalog # RP1032. Tested in IHC applications. This antibody reacts with Human.
Application	IHC
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na2HPO4.
Storage Instructions	Store at -20˚C for one year from date of receipt. After reconstitution, at 4˚C for one month. It can also be aliquotted and stored frozen at -20˚C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	Q9BZS1

Technical Details

Immunogen	E.coli-derived human FOXP3 recombinant protein (Position: H101-P431). Human FOXP3 shares 88% amino acid (aa) sequence identity with mouse FOXP3.
Recommended Detection Systems	Boster recommends HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).

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Cross Reactivity	No cross-reactivity with other proteins
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Immunohistochemistry (Paraffin-embedded Section), 2-5ug/ml, Human

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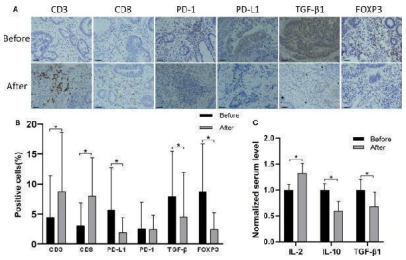
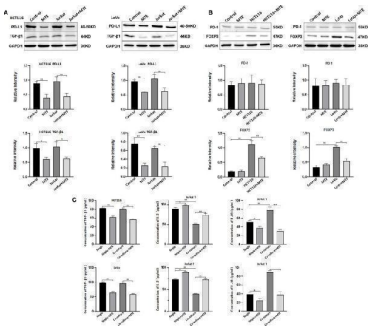
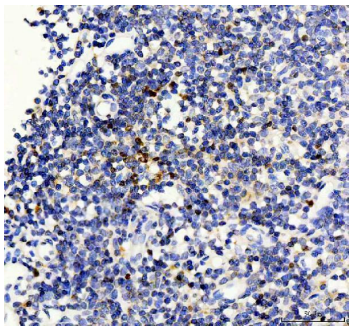
Anti-Forkhead box protein P3 FOXP3 Antibody (RP1032) Images



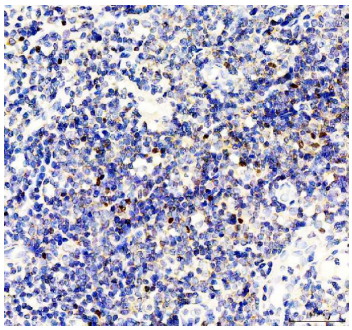
Immunohistochemistry findings from tissue samples of CRC patients before and after MTE treatment. (A) Shown are the findings from one patient. Results of other 16 patients are shown in Figure S1 . (B) The bar graph compares the expression of PD-1, PD-L1, TGF-beta1(tumor), and FOXP3 before and after MTE treatment in all 17 patients. (C) Serum levels of IL-2, IL-10 and TGF-beta1 were compared before and after treatment in all 17 patients. Cytokine concentrations were normalized against the untreated group. * P < 0.05.Index in PubMed under a CC BY license. PMID: 37649480



Western blotting and ELISA of HCT116, LoVo and Jurkat T cells treated with MTE treated in single culture or co-culture condition. (A) Western blot analysis of PD-L1, TGF-beta1 expression in HCT116 or LoVo cells, single cultured or co-cultured with Jurkat T cells and treated with MTE, which were labeled in top row of blots or bottom row of column chart. (B) Western blot analysis of PD-1 and FOXP3 expression in Jurkat T cells single cultured or co-cultured with HCT116 or LoVo cells, and treated with MTE, which were labeled in top row of blots or bottom row of column chart. (C) ELISA analysis of supernatants from single cultures or co-cultures. In single culture, supernatants of HCT116 or LoVo cells was used to test TGF-beta1 secretion, and supernatants of Jurkat T cells was used to test IL-2 and IL-10 secretion levels.* P < 0.05, ** P < 0.01.Index in PubMed under a CC BY license. PMID: 37649480



IHC analysis of FOXP3 using anti-FOXP3 antibody (RP1032). FOXP3 was detected in a paraffin-embedded section of human tonsil tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-FOXP3 Antibody (RP1032) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



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13 Publications Citing This Product

1. PubMed ID: 24573301, Xu D, Yu H, Yu Q, Wu S, Liu D, Lin Y, Zhang Y, Zheng C. Mol Med Rep. 2014 May;9(5):1947-51. Doi: 10.3892/Mmr.2014.1986. Epub 2014 Feb 25. Salvia Miltiorrhiza Increases The Expression Of Transcription Factor Foxp3 In Experimental Murine Colitis.

2. PubMed ID: 26064167, Gong T, Wang Cf, Yuan Jr, Li Y, Gu Jf, Zhao Bj, Zhang L, Jia Xb, Feng L, Liu Sl. Evid Based Complement Alternat Med. 2015;2015:630760. Doi: 10.1155/2015/630760. Epub 2015 May 3. Inhibition Of Tumor Growth And Immunomodulatory Effects Of Flavonoids...

3. PubMed ID: 24369313, Li G, Ren J, Wang G, Gu G, Hu D, Ren H, Hong Z, Wu X, Liu S, Li J. Int Immunopharmacol. 2014 Feb;18(2):244-8. Doi: 10.1016/J.Intimp.2013.12.014. Epub 2013 Dec 22. T2 Enhances In Situ Level Of Foxp3+ Regulatory Cells And Modulates Inflammatory Cyto...

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