

Anti-Human Foxp3 Purified

Catalog Number: 14-4776 Also Known As:Forkhead Box P3, Scurfin, JM2, Treg RUO: For Research Use Only



Immunoblotting of lysate from normal human peripheral blood cells (lane A), BALB/c splenocytes (lane B), or recombinant human Foxp3 fusion protein (lane C); probed with 2 ug/mL of Anti-Human Foxp3 Purified. Bands were revealed with Anti-Rat IgG HRP.

Product Information

Contents: Anti-Human Foxp3 Purified REF Catalog Number: 14-4776 Clone: PCH101 Concentration: 0.5 mg/mL Host/Isotype: Rat IgG2a, kappa **Formulation:** aqueous buffer, 0.09% sodium azide, may contain carrier protein/stabilizer

Temperature Limitation: Store at 2-8°C.

LOT Batch Code: Refer to Vial

- Use By: Refer to Vial
- ٨ Caution, contains Azide

Description

eBioscience offers a panel of monoclonal antibodies to different epitopes of human Foxp3, providing useful tools for investigating the complete expression pattern of Foxp3 at the protein level, and discerning the precise subsets of Foxp3⁺ cells. Please contact tech@ebioscience.com or 888.810.6168 for any additional assistance.

The PCH101 antibody reacts with the amino terminus of human foxp3 protein also known as FORKHEAD BOX P3, SCURFIN, and JM2; cross reactivity of this antibody to other proteins has not been determined. Foxp3, a 49-55 kDa protein, is a member of the forkhead/winged-helix family of transcriptional regulators, and was identified as the gene defective in 'scurfy' (sf) mice. Constitutive high expression of Foxp3 mRNA has been shown in CD4+CD25+ regulatory T cells (Treg cells), and ectopic expression of foxp3 in CD4+CD25- cells imparts a Treg phenotype in these cells.

Intracellular staining of human peripheral blood mononuclear cells (PBMCs) with PCH101 antibody using the anti-human Foxp3 Staining Set and protocol reveals approximately 0.5-4% of lymphocytes staining, with the majority of staining occurring in the CD25^{bright} population. This is subject to donor variability.

PCH101 crossreacts with rhesus, chimpanzee and cynomolgus. We recommend the use of CD4 (OKT4, cat. 11-0048, or RPA-T4, cat. 11-0049, depending on the species) and CD25 (BC96, cat. 17-0259).

Applications Reported

This PCH101 antibody has been reported for use in immunoblotting (WB) and immunohistology on frozen and paraffin-embedded tissue sections. Use of the purified format is not recommended for intracellular staining for flow cytometric analysis. For additional information on IHC, please visit the Foxp3 FAQs http://www.ebioscience.com/ebioscience/Foxp3FAQs.htm

Applications Tested

This PCH101 antibody has been tested by immunoblotting (WB) (1-5 ug/ml) of normal human peripheral blood leukocytes.

References

Bell MP, Svingen PA, Rahman MK, Xiong Y, Faubion WA Jr. FOXP3 regulates TLR10 expression in human T regulatory cells. J Immunol. 2007 Aug 1;179(3):1893-900. (**PCH101**, ChIP assay, PubMed)

Clark RA, Kupper TS. IL-15 and dermal fibroblasts induce proliferation of natural regulatory cells isolated from human skin. Blood. 2007 Jan 1;109(1):194-202.(**PCH101**, IHC frozen, PubMed)

Epple HJ, Loddenkemper C, Kunkel D, Tröger H, Maul J, Moos V, Berg E, Ullrich R, Schulzke JD, Stein H, Duchmann R, Zeitz M,

Schneider T. Mucosal but not peripheral FOXP3+ regulatory T cells are highly increased in untreated HIV infection and normalize after suppressive HAART. Blood. 2006 Nov 1;108(9):3072-8. **PCH101**, IHC paraffin, PubMed)

Manigold T, Shin EC, Mizukoshi E, Mihalik K, Murthy KK, Rice CM, Piccirillo CA, Rehermann B. Foxp3+CD4+CD25+ T cells control virus-specific memory T cells in chimpanzees recovered from Hepatitis C.Blood. 2006 Jun 1;107(11):4424-32. (**PCH101** in chimpanzee, PubMed)

Ahmadzadeh M, Rosenberg SA. IL-2 Administration Increases CD4+CD25hiFoxp3+ Regulatory T Cells in Cancer Patients. Blood. 2006 Mar 15;107(6):2409-14. (**PCH101**, IC Flow, PubMed)

Hartwig UF, Nonn M, Khan S, Meyer RG, Huber C, Herr W. Depletion of alloreactive T cells via CD69: implications on antiviral, antileukemic and immunoregulatory T lymphocytes. Bone Marrow Transplant. 2006 Feb;37(3):297-305. (PCH101, IC Flow, PubMed)

Crellin NK, Garcia RV, Hadisfar O, Allan SE, Steiner TS, Levings MK. Human CD4+ T Cells Express TLR5 and Its Ligand Flagellin Enhances the Suppressive Capacity and Expression of FOXP3 in CD4+CD25+ T Regulatory Cells. J Immunol. 2005 Dec 15;175 (12):8051-9. (PCH101, IC Flow, PubMed)

Lim, H.W., P. Hillsamer, A.H. Banham, and C.H. Kim. 2005. Cutting Edge: Direct Suppression of B cells by CD4+CD25+ Regulatory T cells. J Immunol. 2005 Oct 1;175(7):4180-3. (**PCH101**,IC Flow, PubMed)

Manavalan JS, Kim-Schulze S, Scotto L, Naiyer AJ, Vlad G, Colombo PC, Marboe C, Mancini D, Cortesini R, Suciu-Foca N. Alloantigen specific CD8+CD28- FOXP3+ T suppressor cells induce ILT3+ ILT4+ tolerogenic endothelial cells, inhibiting alloreactivity. Int Immunol. 2004 Aug;16(8):1055-68.

Takahata Y, Nomura A, Takada H, Ohga S, Furuno K, Hikino S, Nakayama H, Sakaguchi S, Hara T. CD25+CD4+ T cells in human cord blood: an immunoregulatory subset with naïve phenotype and specific expression of forkhead box p3 (Foxp3) gene. Exp Hematol. 2004 Jul;32(7):622-9.

Sakaguchi S. 2003. The origin of FOXP3-expressing CD4+ regulatory T cells: thymus or periphery. J Clin Invest. 2003 November 1; 112 (9): 1310–1312.

Hori S, Nomura T, Sakaguchi S. Control of regulatory T cell development by the transcription factor Foxp3. Science. 2003 Feb 14;299 (5609):1057-61.

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