

# FOXP3 Monoclonal Antibody (PCH101), eBioscience™

## Product Details

Size	100 µg
Species Reactivity	Chimpanzee, Cynomolgus monkey, Human, Non-human primate, Rhesus monkey
Published Species	Cynomolgus monkey, Baboon, Non-human primate, Hamster, Human, Mouse, Rhesus monkey
Host/Isotype	Rat / IgG2a, kappa
Class	Monoclonal
Type	Antibody
Clone	PCH101
Conjugate	Unconjugated
Form	Liquid
Concentration	0.5 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2
Contains	0.09% sodium azide
Storage conditions	4° C
RRID	AB_467554

Applications	Tested Dilution	Publications
Western Blot (WB)	1-5 µg/mL	8 Publications
Immunohistochemistry (IHC)	-	34 Publications
Immunohistochemistry (Paraffin) (IHC (P))	5-10 µg/mL	8 Publications
Immunohistochemistry (Frozen) (IHC (F))	10 µg/mL	3 Publications
Immunocytochemistry (ICC/IF)	-	3 Publications
Flow Cytometry (Flow)	-	118 Publications
ChIP assay (ChIP)	-	1 Publication
Miscellaneous PubMed (Misc)	-	1 Publication

## Product Specific Information

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<sup>+</sup> cells.

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<sup>+</sup>CD25<sup>+</sup> regulatory T cells (Treg cells), and ectopic expression of foxp3 in CD4<sup>+</sup>CD25<sup>-</sup> 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<sup>+</sup>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).

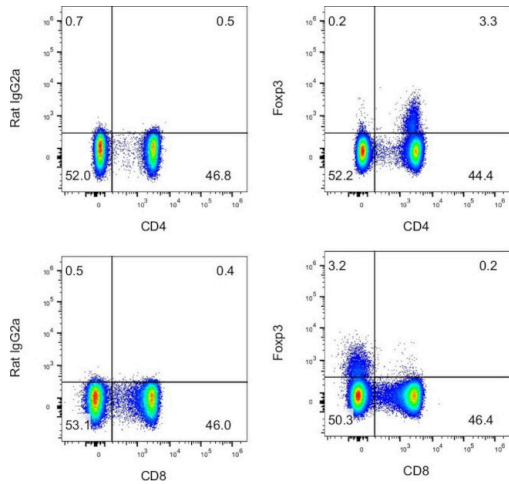
**Applications Reported:** This PCH101 antibody has been reported for use in immunoblotting (WB) and immunohistology on frozen and paraffin-embedded tissue sections. Use of the purified format is not recommended for intracellular staining for flow cytometric analysis. For additional information on IHC,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

**Applications Tested:** This PCH101 antibody has been tested by immunoblotting (WB) (1-5 µg/mL) of normal human peripheral blood leukocytes. This PCH101 antibody has been tested by immunohistochemistry of formalin-fixed paraffin embedded tissue using low pH antigen retrieval and can be used at less than or equal to 10 µg/mL. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

**Purity:** Greater than 90%, as determined by SDS-PAGE.

**Aggregation:** Less than 10%, as determined by HPLC.

**Filtration:** 0.2 µm post-manufacturing filtered.

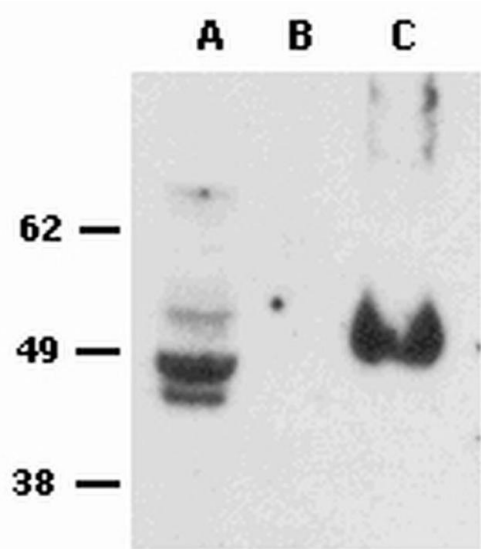


**FOXP3 Antibody (14-4776-82)**

Intracellular staining of human peripheral blood cells. As expected based on known relative expression patterns, Fcγ3 clone PCH101 stains a subset of the CD4+ T cells and does not stain the CD8+ T cells. Details: Normal human peripheral blood cells were surface stained with CD3 (clone UCHT1), CD4 (clone RPA-T4, top), and CD8 (clone OKT8, bottom), followed by intracellular staining with Rat IgG2a kappa Isotype Control (left) or Fcγ3 (clone PCH101, right) using the Fcγ3/Transcription Factor Staining Buffer Set and protocol. Lymphocytes in the CD3+ gate were used for analysis. {RE}

**FOXP3 Antibody (14-4776-82) in WB**

Immunoblotting of lysate from normal human peripheral blood cells (lane A), BALB/c splenocytes (lane B), or recombinant human Fcγ3 fusion protein (lane C); probed with 2 µg/mL of Anti-Human Fcγ3 Purified. Bands were revealed with Anti-Rat IgG HRP.



**FOXP3 Antibody (14-4776-82) in IHC (P)**

Immunohistochemical analysis of FOXP3 was performed using formalin-fixed paraffin-embedded Lymph node (Hodgkin lymphoma) tissue sections. To expose the target protein, heat-induced epitope retrieval was performed on de-paraffinized sections using eBioscience™ IHC Antigen Retrieval Solution - High pH (10X) (Product # 00-4956-58) diluted to 1X solution in water in a decloaking chamber at 110 degree Celsius for 15 minutes. Following antigen retrieval, the sections were blocked with 2% normal goat serum in 1X PBS for 45 minutes at room temperature and then probed with or without FOXP3 Monoclonal Antibody (PCH101), eBioscience™ (Product # 14-4776-82) at 5 µg/mL dilution in 0.1% normal goat serum overnight at 4 degree Celsius in a humidified chamber. Detection was performed using Goat anti-Rat IgG (H+L) Cross-Adsorbed Secondary Antibody, Alexa Fluor™ 488 (Product # A-11006) at a dilution of 1:2000 in 0.1% normal goat serum for 45 minutes at room temperature. ReadyProbes™ Tissue Autofluorescence Quenching Kit (Product # R37630) was used to quench autofluorescence from the tissues. Nuclei were stained with DAPI (Product # D1306) and the sections were mounted using ProLong™ Glass Antifade Mountant (Product # P36984). The images were captured on EVOS™ M7000 Imaging System (Product # AMF7000) at 20X magnification.

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Western Blot (8)

<p>Cellular and molecular gastroenterology and hepatology</p> <p><b>Disruption of FOXP3-EZH2 Interaction Represents a Pathobiological Mechanism in Intestinal Inflammation.</b></p> <p>"14-4776 was used in Western Blotting to study whether a physical interaction between FOXP3 and the epigenetic enzyme enhancer of zeste homologue 2 is essential for gene co-repressive function."</p> <p>Authors: Bamidele AO,Svingen PA,Sagstetter MR,Sarmiento OF,Gonzalez M,Braga Neto MB,Kugathasan S,Lomberg G,Urrutia RA,Faubion WA</p>	<p>Year 2019</p> <p>Species Human</p>
<p>Journal of immunology (Baltimore, Md. : 1950)</p> <p><b>Cutting Edge: Increased Autoimmunity Risk in Glycogen Storage Disease Type 1b Is Associated with a Reduced Engagement of Glycolysis in T Cells and an Impaired Regulatory T Cell Function.</b></p> <p>"14477682 was used in western blot to examine the effect of glucose-6-phosphate transporter mutation on immune cell homeostasis and CD4+ T cell functions"</p> <p>Authors: Melis D,Carbone F,Minopoli G,La Rocca C,Perna F,De Rosa V,Galgani M,Andria G,Parenti G,Matarese G</p>	<p>Year 2017</p> <p>Species Human</p>

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Immunohistochemistry (34)

<p>JCI insight</p> <p><b>Multiplexed single-cell analysis reveals prognostic and nonprognostic T cell types in human colorectal cancer.</b></p> <p>"14-4776-82 was used in Immunohistochemistry to study the functional and phenotypic heterogeneity of T-cell infiltrates and their contribution to clinical outcomes in colorectal cancer using droplet-based single cell RNA sequencing."</p> <p>Authors: Masuda K,Kornberg A,Miller J,Lin S,Suek N,Botella T,Secener KA,Bacarella AM,Cheng L,Ingham M,Rosario V,Al-Mazrou AM,Lee-Kong SA,Kiran RP,Stoeckius M,Smibert P,Del Portillo A,Oberstein PE,Sims PA,Yan KS,Han A</p>	<p>Year 2022</p> <p>Species Human</p>
<p>Neural regeneration research</p> <p><b>VX-765 reduces neuroinflammation after spinal cord injury in mice.</b></p> <p>"Published figure using FOXP3 monoclonal antibody (Product # 14-4776-82) in Immunohistochemistry"</p> <p>Authors: Chen J,Chen YQ,Shi YJ,Ding SQ,Shen L,Wang R,Wang QY,Zha C,Ding H,Hu JG,Lü HZ</p>	<p>Year 2021</p> <p>Species Mouse</p> <p>Dilution 1:200</p>

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More applications with references on thermofisher.com

- IHC (P) (8)
- IHC (F) (3)
- ICC/IF (3)
- Flow (118)
- ChIP (1)
- Misc (1)

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