

Anti-FOXP3 Antibody
Catalog # ABO12717

Specification

Anti-FOXP3 Antibody - Product Information

Application	IHC
Primary Accession	O9BZS1
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for Forkhead box protein P3(FOXP3) detection. Tested with IHC-P in Human;Mouse;Rat.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-FOXP3 Antibody - Additional Information

Gene ID 50943

Other Names

Forkhead box protein P3, Scurfin, Forkhead box protein P3, C-terminally processed, Forkhead box protein P3 41 kDa form, FOXP3, IPEX

Calculated MW

47244 MW KDa

Application Details

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, Mouse, Rat, By Heat

Subcellular Localization

Nucleus . Cytoplasm . Predominantly expressed in the cytoplasm in activated conventional T-cells whereas predominantly expressed in the nucleus in regulatory T-cells (Treg). The 41 kDa form derived by proteolytic processing is found exclusively in the chromatin fraction of activated Treg cells (By similarity) .

Protein Name

Forkhead box protein P3

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg Na₃N.

Immunogen

E.coli-derived human FOXP3 recombinant protein (Position: H101-P431). Human FOXP3 shares 88% amino acid (aa) sequence identity with mouse FOXP3.

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage

At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.

Sequence Similarities

Contains 1 C2H2-type zinc finger.

Anti-FOXP3 Antibody - Protein Information**Name** FOXP3**Synonyms** IPEX**Function**

Transcriptional regulator which is crucial for the development and inhibitory function of regulatory T-cells (Treg) (PubMed: [17377532](http://www.uniprot.org/citations/17377532) target="_blank">17377532, PubMed: [21458306](http://www.uniprot.org/citations/21458306) target="_blank">21458306, PubMed: [23947341](http://www.uniprot.org/citations/23947341) target="_blank">23947341, PubMed: [24354325](http://www.uniprot.org/citations/24354325) target="_blank">24354325, PubMed: [24722479](http://www.uniprot.org/citations/24722479) target="_blank">24722479, PubMed: [24835996](http://www.uniprot.org/citations/24835996) target="_blank">24835996, PubMed: [30513302](http://www.uniprot.org/citations/30513302) target="_blank">30513302, PubMed: [32644293](http://www.uniprot.org/citations/32644293) target="_blank">32644293). Plays an essential role in maintaining homeostasis of the immune system by allowing the acquisition of full suppressive function and stability of the Treg lineage, and by directly modulating the expansion and function of conventional T-cells (PubMed: [23169781](http://www.uniprot.org/citations/23169781) target="_blank">23169781). Can act either as a transcriptional repressor or a transcriptional activator depending on its interactions with other transcription factors, histone acetylases and deacetylases (PubMed: [17377532](http://www.uniprot.org/citations/17377532) target="_blank">17377532, PubMed: [21458306](http://www.uniprot.org/citations/21458306) target="_blank">21458306, PubMed: [23947341](http://www.uniprot.org/citations/23947341) target="_blank">23947341, PubMed: [24354325](http://www.uniprot.org/citations/24354325) target="_blank">24354325, PubMed: [24722479](http://www.uniprot.org/citations/24722479) target="_blank">24722479). The suppressive activity of Treg involves the coordinate activation of many genes, including CTLA4 and TNFRSF18 by FOXP3 along with repression of genes encoding cytokines such as interleukin-2 (IL2) and interferon-gamma (IFNG) (PubMed: [17377532](http://www.uniprot.org/citations/17377532) target="_blank">17377532, PubMed: [21458306](http://www.uniprot.org/citations/21458306) target="_blank">21458306, PubMed: [23947341](http://www.uniprot.org/citations/23947341) target="_blank">23947341, PubMed: [24354325](http://www.uniprot.org/citations/24354325) target="_blank">24354325, PubMed: [24722479](http://www.uniprot.org/citations/24722479) target="_blank">24722479). Inhibits cytokine production and T-cell effector function by repressing the activity of two key transcription factors, RELA and NFATC2 (PubMed: [15790681](http://www.uniprot.org/citations/15790681) target="_blank">15790681). Mediates transcriptional repression of IL2 via its association with histone acetylase KAT5 and histone deacetylase HDAC7 (PubMed: [17360565](http://www.uniprot.org/citations/17360565) target="_blank">17360565). Can activate the expression of TNFRSF18, IL2RA and CTLA4 and repress the expression of IL2 and IFNG via its association with transcription factor RUNX1

(PubMed:17377532). Inhibits the differentiation of IL17 producing helper T-cells (Th17) by antagonizing RORC function, leading to down-regulation of IL17 expression, favoring Treg development (PubMed:18368049). Inhibits the transcriptional activator activity of RORA (PubMed:18354202). Can repress the expression of IL2 and IFNG via its association with transcription factor IKZF4 (By similarity).

Cellular Location

Nucleus {ECO:0000255|PROSITE-ProRule:PRU00089, ECO:0000269|PubMed:17360565, ECO:0000269|PubMed:18354202, ECO:0000269|PubMed:22678915, ECO:0000269|PubMed:23396208, ECO:0000269|PubMed:23973222, ECO:0000269|PubMed:23973223, ECO:0000269|PubMed:32644293}. Cytoplasm

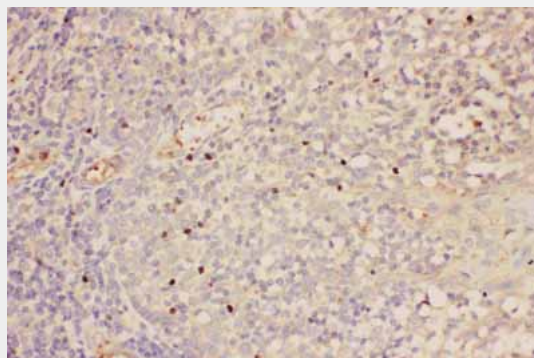
Note=Predominantly expressed in the cytoplasm in activated conventional T-cells whereas predominantly expressed in the nucleus in regulatory T- cells (Treg). The 41 kDa form derived by proteolytic processing is found exclusively in the chromatin fraction of activated Treg cells (By similarity). {ECO:0000250|UniProtKB:Q99JB6, ECO:0000269|PubMed:22678915}

Anti-FOXP3 Antibody - Protocols

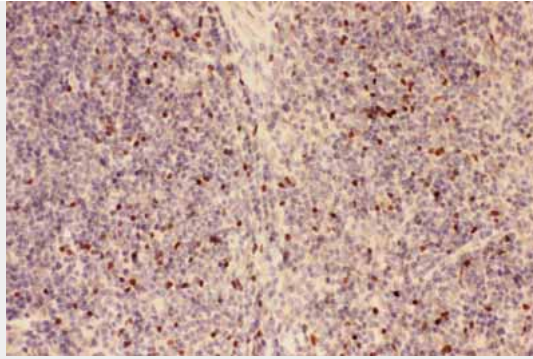
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

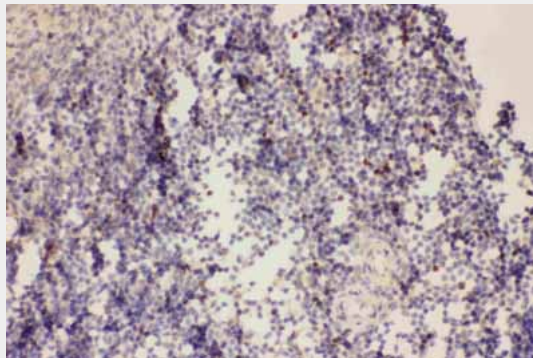
Anti-FOXP3 Antibody - Images



Anti-FOXP3 Picoband antibody, ABO12717-1.JPGIHC(P): Human Tonsil Tissue



Anti-FOXP3 Picoband antibody, ABO12717-2.JPGIHC(P): Mouse Spleen Tissue



Anti-FOXP3 Picoband antibody, ABO12717-3.JPGIHC(P):Rat Spleen Tissue

Anti-FOXP3 Antibody - Background

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.