

# Anti-FOXP3 Antibody

Catalog # ABO10891

## Product Information

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|--------------------------|-------------------------------------------------------------------------------------------------------|
| <b>Application</b>       | WB                                                                                                    |
| <b>Primary Accession</b> | <a href="#">Q9BZS1</a>                                                                                |
| <b>Host</b>              | Rabbit                                                                                                |
| <b>Reactivity</b>        | Human                                                                                                 |
| <b>Clonality</b>         | Polyclonal                                                                                            |
| <b>Format</b>            | Lyophilized                                                                                           |
| <b>Description</b>       | Rabbit IgG polyclonal antibody for Forkhead box protein P3(FOXP3) detection. Tested with WB in Human. |
| <b>Reconstitution</b>    | Add 0.2ml of distilled water will yield a concentration of 500ug/ml.                                  |

## Additional Information

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| <b>Gene ID</b>                  | 50943                                                                                                                                                                                                                                                                                                                     |
| <b>Other Names</b>              | Forkhead box protein P3, Scurfin, Forkhead box protein P3, C-terminally processed, Forkhead box protein P3 41 kDa form, FOXP3, IPEX                                                                                                                                                                                       |
| <b>Calculated MW</b>            | 47244                                                                                                                                                                                                                                                                                                                     |
| <b>Application Details</b>      | Western blot, 0.1-0.5 µg/ml, Human                                                                                                                                                                                                                                                                                        |
| <b>Subcellular Localization</b> | 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). . |
| <b>Source</b>                   | Eukaryota                                                                                                                                                                                                                                                                                                                 |
| <b>Protein Name</b>             | Forkhead box protein P3                                                                                                                                                                                                                                                                                                   |
| <b>Contents</b>                 | Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3.                                                                                                                                                                                                                                    |
| <b>Immunogen</b>                | A synthetic peptide corresponding to a sequence in the middle region of human FOXP3(321-337aa FPEFLHNMDYFKFHNMR), different from the related mouse sequence by two amino acids.                                                                                                                                           |
| <b>Purification</b>             | Immunogen affinity purified.                                                                                                                                                                                                                                                                                              |
| <b>Cross Reactivity</b>         | No cross reactivity with other proteins                                                                                                                                                                                                                                                                                   |

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| <b>Storage</b>               | At -20° C for one year. After r° Constitution, 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. |
| <b>Sequence Similarities</b> | Contains 1 C2H2-type zinc finger.                                                                                                                                                   |

## Protein Information

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| <b>Name</b>              | FOXP3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Synonyms</b>          | IPEX                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Function</b>          | <p>Transcriptional regulator which is crucial for the development and inhibitory function of regulatory T-cells (Treg) (PubMed:<a href="#">17377532</a>, PubMed:<a href="#">21458306</a>, PubMed:<a href="#">23947341</a>, PubMed:<a href="#">24354325</a>, PubMed:<a href="#">24722479</a>, PubMed:<a href="#">24835996</a>, PubMed:<a href="#">30513302</a>, PubMed:<a href="#">32644293</a>). 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:<a href="#">23169781</a>). Can act either as a transcriptional repressor or a transcriptional activator depending on its interactions with other transcription factors, histone acetylases and deacetylases (PubMed:<a href="#">17377532</a>, PubMed:<a href="#">21458306</a>, PubMed:<a href="#">23947341</a>, PubMed:<a href="#">24354325</a>, PubMed:<a href="#">24722479</a>). 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:<a href="#">17377532</a>, PubMed:<a href="#">21458306</a>, PubMed:<a href="#">23947341</a>, PubMed:<a href="#">24354325</a>, PubMed:<a href="#">24722479</a>). Inhibits cytokine production and T-cell effector function by repressing the activity of two key transcription factors, RELA and NFATC2 (PubMed:<a href="#">15790681</a>). Mediates transcriptional repression of IL2 via its association with histone acetylase KAT5 and histone deacetylase HDAC7 (PubMed:<a href="#">17360565</a>). 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:<a href="#">17377532</a>). 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:<a href="#">18368049</a>). Inhibits the transcriptional activator activity of RORA (PubMed:<a href="#">18354202</a>). Can repress the expression of IL2 and IFNG via its association with transcription factor IKZF4 (By similarity).</p> |
| <b>Cellular Location</b> | <p>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}</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

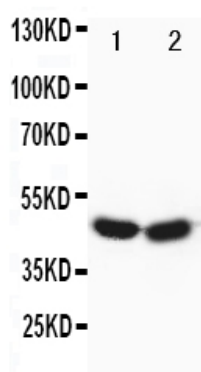
## Background

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.

## Images

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Anti-FOXP3 antibody, ABO10891, Western blotting  
Lane 1: HELA Cell Lysate  
Lane 2: SGC Cell Lysate

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.