

FOXP3 Antibody (Center) Blocking Peptide
Synthetic peptide
Catalog # BP2795c**Specification**

FOXP3 Antibody (Center) Blocking Peptide - Product InformationPrimary Accession [Q9BZS1](#)**FOXP3 Antibody (Center) Blocking Peptide - Additional Information****Gene ID** 50943**Other Names**

Forkhead box protein P3, Scurfin, FOXP3, IPEX

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP2795c](/products/AP2795c) was selected from the Center region of human FOXP3. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

FOXP3 Antibody (Center) Blocking Peptide - 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), PubMed: [21458306](http://www.uniprot.org/citations/21458306), PubMed: [30513302](http://www.uniprot.org/citations/30513302), PubMed: [23947341](http://www.uniprot.org/citations/23947341), PubMed: [24354325](http://www.uniprot.org/citations/24354325), PubMed: [24722479](http://www.uniprot.org/citations/24722479), PubMed: [24835996](http://www.uniprot.org/citations/24835996), PubMed: [32644293](http://www.uniprot.org/citations/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). 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, PubMed:21458306, PubMed:23947341, PubMed:24354325, PubMed: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, PubMed:21458306, PubMed:23947341, PubMed:24354325, PubMed:24722479). Inhibits cytokine production and T-cell effector function by repressing the activity of two key transcription factors, RELA and NFATC2 (PubMed:15790681). Mediates transcriptional repression of IL2 via its association with histone acetylase KAT5 and histone deacetylase HDAC7 (PubMed: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}

FOXP3 Antibody (Center) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

FOXP3 Antibody (Center) Blocking Peptide - Images

FOXP3 Antibody (Center) Blocking Peptide - Background

FOXP3 is a member of the forkhead/winged-helix family of transcriptional regulators. Defects in FOXP3 gene are the cause of immunodeficiency polyendocrinopathy, enteropathy, X-linked syndrome (IPEX), also known as X-linked autoimmunity-immunodeficiency syndrome.

FOXP3 Antibody (Center) Blocking Peptide - References

Eisenberger,U.,Transplantation 87 (1), 138-142 (2009) Ouaked,N., J. Immunol. 182 (2), 1041-1049 (2009) Kivling,A., Ann. N. Y. Acad. Sci. 1150, 273-277 (2008)