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FOXP3 Antibody (C-term S418) Blocking Peptide

Synthetic peptide
Catalog # BP18718b

Specification

FOXP3 Antibody (C-term S418) Blocking Peptide - Product Information

Primary Accession Q9BZS1

FOXP3 Antibody (C-term S418) Blocking Peptide - Additional Information

Gene ID 50943

Other Names
Forkhead box protein P3, Scurfin, FOXP3, IPEX

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 (C-term S418) 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, PubMed:21458306, PubMed:30513302, PubMed:23947341, PubMed:24354325, PubMed:24722479, PubMed:24835996, PubMed: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:<a

href="http://www.uniprot.org/citations/21458306" target="_blank">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 (C-term S418) Blocking Peptide - Protocols

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

- Blocking Peptides

FOXP3 Antibody (C-term S418) Blocking Peptide - Images

FOXP3 Antibody (C-term S418) Blocking Peptide - Background

The protein encoded by this gene is a member of theforkhead/winged-helix family of transcriptional regulators. Defectsin this gene are the cause of immunodeficiency polyendocrinopathy,enteropathy, X-linked syndrome (IPEX), also known as X-linkedautoimmunity-immunodeficiency syndrome. Alternatively splicedtranscript variants encoding different isoforms have beenidentified.

FOXP3 Antibody (C-term S418) Blocking Peptide - References

Nadeau, K., et al. J. Allergy Clin. Immunol. 126(4):845-852(2010)Gandhi, R., et al. Nat. Immunol. 11(9):846-853(2010)Lan, Y., et al. Zhonghua Yi Xue Yi Chuan Xue Za Zhi

27(4):433-436(2010)Comperat, E., et al. Anal. Quant. Cytol. Histol. 32(1):39-44(2010)Atfy, M., et al. Egypt J Immunol 16(1):117-126(2009)