

FOXP3 Blocking Peptide
Catalog # PBV10333b**Specification**

FOXP3 Blocking Peptide - Product Information

Primary Accession	O99JB6
Other Accession	NP_473380
Gene ID	20371
Calculated MW	47346

FOXP3 Blocking Peptide - Additional Information**Gene ID** 20371**Application & Usage**

The peptide is used for blocking the antibody activity of FOXP3. It usually blocks the antibody activity completely in Western blot analysis by incubating the peptide with equal volume of antibody for 30-60 minutes at 37°C.

Other Names

Forkhead box protein P3, Scurfin, Foxp3

Target/Specificity

FOXP3

Formulation

50 µg (0.5 mg/ml) in phosphate buffered saline (PBS), pH 7.2, containing 50% glycerol, 1% BSA and 0.02% thimerosal.

Reconstitution & Storage

-20 °C

Background Descriptions**Precautions**

FOXP3 Blocking Peptide is for research use only and not for use in diagnostic or therapeutic procedures.

FOXP3 Blocking Peptide - Protein Information**Name** Foxp3**Function**

Transcriptional regulator which is crucial for the development and inhibitory function of regulatory T-cells (Treg) (PubMed:22813742). 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. Can act either as a transcriptional repressor or a transcriptional activator depending on its interactions with other transcription factors, histone acetylases and deacetylases. 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). 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 (By similarity). 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 (By similarity). Can repress the expression of IL2 and IFNG via its association with transcription factor IKZF4 (PubMed:19696312).

Cellular Location

Nucleus {ECO:0000255|PROSITE-ProRule:PRU00089, ECO:0000269|PubMed:17377532, ECO:0000269|PubMed:18368049}. Cytoplasm {ECO:0000250|UniProtKB:Q9BZS1}. Note=Predominantly expressed in the cytoplasm in activated conventional T-cells whereas predominantly expressed in the nucleus in regulatory T-cells (Treg) (By similarity) The 41 kDa form derived by proteolytic processing is found exclusively in the chromatin fraction of activated Treg cells {ECO:0000250|UniProtKB:Q9BZS1, ECO:0000269|PubMed:19117830}

Tissue Location

High level of expression in thymus and spleen.

FOXP3 Blocking Peptide - 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](#)

FOXP3 Blocking Peptide - Images