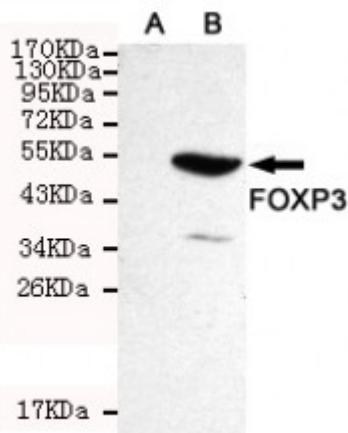


Anti-FOXP3 antibody



Description	Mouse monoclonal to FOXP3.
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Model	STJ99099
Host	Mouse
Applications	ELISA, WB
Immunogen	Purified recombinant human FOXP3 protein fragments expressed in E.coli.
Gene ID	50943
Gene Symbol	FOXP3
Dilution range	WB 1:500-2000 ELISA 1:10000-20000
Specificity	Transfected Only.
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Clone ID	7H9-D6-A10
Note	For Research Use Only (RUO).
Protein Name	Forkhead box protein P3 Scurfin Forkhead box protein P3, C-terminally processed Forkhead box protein P3 41 kDa form
Molecular Weight	47kDa
Clonality	Monoclonal
Conjugation	Unconjugated
Isotype	IgG1

Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Concentration	1 mg/ml
Storage Instruction	Store at -20°C, and avoid repeat freeze-thaw cycles.
Database Links	HGNC:6106 OMIM:300292
Alternative Names	Forkhead box protein P3 Scurfin Forkhead box protein P3, C-terminally processed Forkhead box protein P3 41 kDa form
Function	Transcriptional regulator which is crucial for the development and inhibitory function of regulatory T-cells (Treg). 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. Mediates transcriptional repression of IL2 via its association with histone acetylase KAT5 and histone deacetylase HDAC7. Can activate the expression of TNFRSF18, IL2RA and CTLA4 and repress the expression of IL2 and IFNG via its association with transcription factor RUNX1. Inhibits the differentiation of IL17 producing helper T-cells (Th17) by antagonizing RORC function, leading to down-regulation of IL17 expression, favoring Treg development. Inhibits the transcriptional activator activity of RORA. Can repress the expression of IL2 and IFNG via its association with transcription factor IKZF4.
Cellular 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.
Post-translational Modifications	Polyubiquitinated, leading to its proteasomal degradation in regulatory T-cells (Treg) which is mediated by STUB1 in a HSPA1A/B-dependent manner. Deubiquitinated by USP7 leading to increase in protein stability. Phosphorylation at Ser-418 regulates its transcriptional repressor activity and consequently, regulatory T-cells (Treg) suppressive function. Dephosphorylated at Ser-418 by protein phosphatase 1 (PP1) in Treg cells derived from patients with rheumatoid arthritis. Phosphorylation by CDK2 negatively regulates its transcriptional activity and protein stability. Acetylation on lysine residues stabilizes FOXP3 and promotes differentiation of T-cells into induced regulatory T-cells (iTregs) associated with suppressive functions. Deacetylated by SIRT1. Undergoes proteolytic cleavage in activated regulatory T-cells (Treg), and can be cleaved at either the N- or C-terminal site, or at both sites.