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FoxP3 Rabbit pAb

Catalog # AP96971

Product Information

Application	WB, IHC-P, IHC-F
Primary Accession	Q99JB6
Other Accession	Q99JB6
Reactivity	Rat, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	47346
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human FoxP3
Epitope Specificity	11-100/431
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Contains 1 C2H2-type zinc finger.Contains 1 fork-head DNA-binding domain.
SUBUNIT	Interacts with IKZF3.
Post-translational modifications	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.
DISEASE	Defects in FOXP3 are the cause of immunodeficiency polyendocrinopathy, enteropathy, X-linked syndrome (IPEX) [MIM:304790]; also known as X-linked autoimmunity-immunodeficiency syndrome. IPEX is characterized by neonatal onset insulin-dependent diabetes mellitus, infections, secretory diarrhea, trombocytopenia, anemia and eczema. It is usually lethal in infancy.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	The protein encoded by this gene is a member of the forkhead/winged-helix family of transcriptional regulators. Defects in this gene are the cause of immunodeficiency polyendocrinopathy, enteropathy, X-linked syndrome (IPEX), also known as X-linked autoimmunity-immunodeficiency syndrome. Alternatively spliced transcript variants encoding different isoforms have been identified. [provided by RefSeq, Jul 2008].

Additional Information

Gene ID	20371
Other Names	AIID; DIETER; IPEX; JM2; PIDX; XPID; scurfin; sf; RGD1562112; FOXP3_HUMAN; FOXP3; FOXP3_MOUSE; D3ZKI1_RAT;
Dilution	WB=1:500-2000,IHC-P=1:200-1000,IHC-F=1:200-1000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody

is stable for at least two weeks at 2-4 °C.

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.

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