10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

FOXP3 Antibody

Purified Mouse Monoclonal Antibody (Mab)
Catalog # AP52710

Product Information

Application	WB, ICC
Primary Accession	Q9BZS1
Reactivity	Human, Mouse, Rat
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1
Calculated MW	47244

Additional Information

Gene ID	50943
Other Names	AIID;DIETER;Forkhead box P3;Forkhead box protein P3;foxp3;foxp3;FOXP3_HUMAN;FOXP3delta7; Immune dysregulation polyendocrinopathy enteropathy X linked;Immunodeficiency polyendocrinopathy enteropathy X linked;IPEX;JM2;MGC141961;MGC141963; OTTHUMP00000025832;OTTHUMP00000025833;OTTHUMP00000226737;PIDX ;SCURFIN;XPID.
Dilution	WB~~1:300 ICC~~1:100
Format	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide, pH 7.3.
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

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:23947341, PubMed:24354325, PubMed:24722479, PubMed:24835996, PubMed:30513302, 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: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}

Background

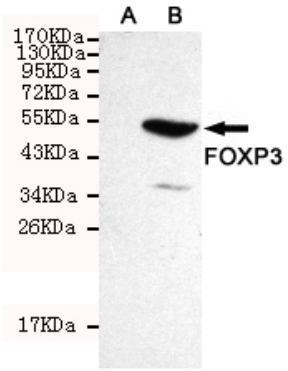
Probable transcription factor. Plays a critical role in the control of immune response.

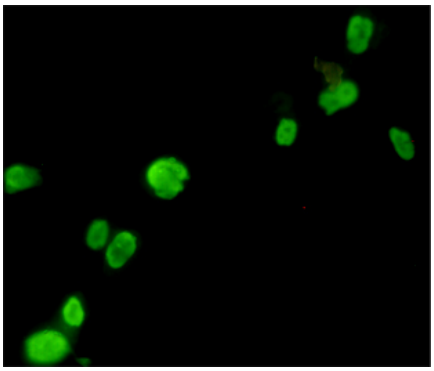
References

Brunkow M.E.,et al.Nat. Genet. 27:68-73(2001).
Wang J.,et al.Submitted (APR-2007) to the EMBL/GenBank/DDBJ databases.
Kaur G.,et al.Submitted (JUN-2008) to the EMBL/GenBank/DDBJ databases.
Lin L.,et al.Submitted (APR-2005) to the EMBL/GenBank/DDBJ databases.
Ross M.T.,et al.Nature 434:325-337(2005).

Images

Western blot detection of FOXP3 in CHO-K1 cell lysate(A)and CHO-K1 transfected by FOXP3(B)cell lysate using FOXP3 mouse mAb (1:300 diluted).Predicted band size:47KDa.Observed band size:50KDa.





Immunocytochemistry staining of CHO-K1 cells which transfected by FOXP3 fixed in 1% Paraformaldehyde and using anti-FOXP3 mouse mAb (dilution 1:100).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.