

# FoxP3

Mouse Monoclonal antibody(Mab)
Catalog # AD80464

#### **Product Information**

Application IHC-P
Primary Accession Q9BZS1
Reactivity Human
Host Mouse
Clonality Monoclonal
Clone Names 341B2A2
Calculated MW 47244

### **Additional Information**

**Gene ID** 50943

Other Names Forkhead box protein P3, Scurfin, Forkhead box protein P3, C-terminally

processed, Forkhead box protein P3 41 kDa form, FOXP3, IPEX

**Dilution** IHC-P~~Ready-to-use

**Storage** Maintain refrigerated at 2-8°C.

#### **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:<u>23169781</u>). 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, Pu

PubMed: <u>21458306</u>, PubMed: <u>23947341</u>, PubMed: <u>24354325</u>,

PubMed:<u>24722479</u>). 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: <u>17377532</u>, PubMed: <u>21458306</u>, PubMed: <u>23947341</u>, PubMed: <u>24354325</u>, PubMed: <u>24722479</u>). Inhibits cytokine production and T-cell effector function by repressing the activity of two key

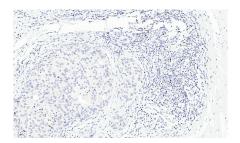
transcription factors, RELA and NFATC2 (PubMed:<u>15790681</u>). Mediates

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}

## **Images**



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