

Anti-FOXP1 Antibody Picoband®

Catalog Number: A00723

About FOXP1

FOXP1 ("forkhead box P1") is a gene that is necessary for the proper development of the brain and lung in mammals. It is a member of the large FOX family of transcription factors. This gene belongs to subfamily P of the forkhead box (FOX) transcription factor family. Forkhead box transcription factors play important roles in the regulation of tissue- and cell type-specific gene transcription during both development and adulthood. Forkhead box P1 protein contains both DNA-binding- and protein-protein binding-domains. This gene may act as a tumor suppressor as it is lost in several tumor types and maps to a chromosomal region (3p14.1) reported to contain a tumor suppressor gene (s). Alternative splicing results in multiple transcript variants encoding different isoforms. It was shown that the embryonic stem cell (ESC)-specific isoform of FOXP1 stimulates the expression of transcription factor genes required for pluripotency, including OCT4, NANOG, NR5A2, and GDF3, while concomitantly repressing genes required for ESC differentiation. This isoform also promotes the maintenance of ESC pluripotency and contributes to efficient reprogramming of somatic cells into induced pluripotent stem cells. These results reveal a pivotal role for an Alternative splicing event in the regulation of pluripotency through the control of critical ESC-specific transcriptional programs (2).

Overview

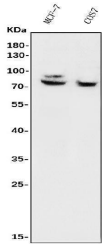
Product Name	Anti-FOXP1 Antibody Picoband®
Reactive Species	Human, Monkey, Mouse, Rat
Description	Boster Bio Anti-FOXP1 Antibody Picoband® catalog # A00723. Tested in IHC, WB applications. This antibody reacts with Human, Monkey, Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na ₂ HPO ₄ .
Storage Instructions	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	Q9H334

Technical Details

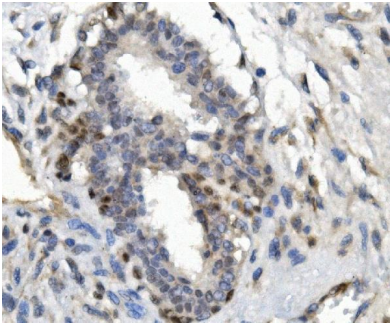
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human FOXP1, identical to the related mouse and rat sequences.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).

Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.25-0.5ug/ml, Human, Monkey Immunohistochemistry (Paraffin-embedded Section), 1-2ug/ml, Human, Mouse, Rat

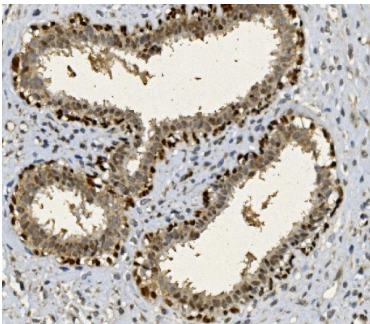
Anti-FOXP1 Antibody Picoband® (A00723) Images



Western blot analysis of FOXP1 using anti-FOXP1 antibody (A00723). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30ug of sample under reducing conditions. Lane 1: human MCF-7 whole cell lysates, Lane 2: monkey COS-7 whole cell lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-FOXP1 antigen affinity purified polyclonal antibody (Catalog # A00723) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for FOXP1 at approximately 82KD. The expected band size for FOXP1 is at 82KD.

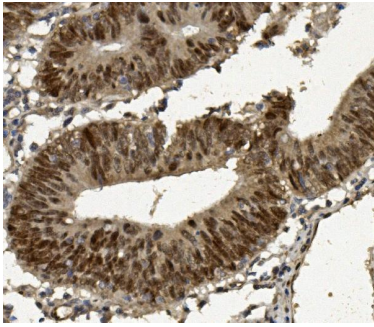


IHC analysis of FOXP1 using anti-FOXP1 antibody (A00723). FOXP1 was detected in paraffin-embedded section of human mammary cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-FOXP1 Antibody (A00723) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

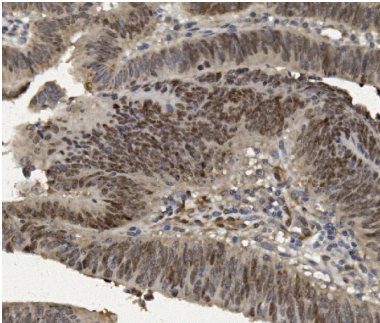


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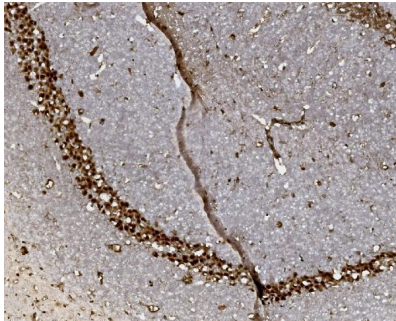
IHC analysis of FOXP1 using anti-FOXP1 antibody (A00723). FOXP1 was detected in paraffin-embedded section of human rectal cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-FOXP1 Antibody (A00723) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and



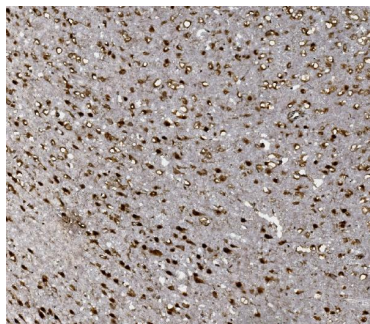
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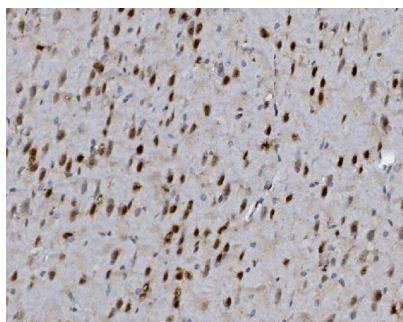


IHC analysis of FOXP1 using anti-FOXP1 antibody (A00723). FOXP1 was detected in paraffin-embedded section of mouse brain tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-FOXP1 Antibody (A00723) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.



IHC analysis of FOXP1 using anti-FOXP1 antibody (A00723). FOXP1 was detected in paraffin-embedded section of mouse brain tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-FOXP1 Antibody (A00723) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

IHC analysis of FOXP1 using anti-FOXP1 antibody (A00723). FOXP1 was detected in paraffin-embedded section of rat brain tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-FOXP1 Antibody (A00723) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated



for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

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Anti-FOXP1 Antibody

For Research Use Only. Not for use in diagnostic procedures.