Anti-FOXP3 antibody [mAbcam 22510] ab22510

Overview

Product name
Anti-FOXP3 antibody [mAbcam 22510]

Description
Mouse monoclonal [mAbcam 22510] to FOXP3

Host species
Mouse

Specificity
This product detects an epitope near the C-terminus of the FOXP3 protein and is expected to detect full length FOXP3. It is not expected to detect the cleaved forms of FOXP3.

Tested applications
Suitable for: IHC-Fr, IHC-P, WB

Species reactivity
Reacts with: Rat, Human

Immunogen
Synthetic peptide within Human FOXP3 aa 400 to the C-terminus conjugated to keyhole limpet haemocyanin. The exact sequence is proprietary. (Peptide available as ab16809)

Positive control
IHC-P: Human tonsil and spleen tissue. Human colon carcinoma tissue. IHC-Fr: Human tonsil tissue. WB: HEK293 cells overexpressing human FOXP3.

General notes
This antibody clone is manufactured by Abcam.

If you require this antibody in a particular buffer formulation or a particular conjugate for your experiments, please contact orders@abcam.com or you can find further information here.

Properties

Form
Liquid

Storage instructions
Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.

Storage buffer
pH: 7.50
Preservative: 0.02% Sodium azide
Constituent: PBS

Please note that some batches of ab22510 may contain 0.4M arginine. Please contact Scientific Support for further information.

Purity
IgG fraction

Clonality
Monoclonal

Clone number
mAbcam 22510
Isotype: IgG1
Light chain type: kappa

Applications

Our Abpromise guarantee covers the use of ab22510 in the following tested applications.
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
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</thead>
<tbody>
<tr>
<td>IHC-Fr</td>
<td></td>
<td>Use a concentration of 10 µg/ml.</td>
</tr>
<tr>
<td>IHC-P</td>
<td>★★★☆☆☆</td>
<td>Use a concentration of 10 µg/ml. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.</td>
</tr>
<tr>
<td>WB</td>
<td>★★★★★☆☆☆☆</td>
<td>Use a concentration of 1 µg/ml. Detects a band of approximately 48 kDa (predicted molecular weight: 48 kDa).</td>
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Target

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

Involvement in 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.

Sequence similarities: Contains 1 C2H2-type zinc finger.
Contains 1 fork-head DNA-binding domain.

Cellular localization: Nucleus.

Images
IHC image of FOXP3 staining in a section of formalin-fixed paraffin-embedded normal human tonsil* performed on a Leica BOND™ system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with EDTA buffer (pH9, epitope retrieval solution 2) for 20mins. The section was then incubated with ab22510, 10ug/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.

*Tissue obtained from the Human Research Tissue Bank, supported by the NIHR Cambridge Biomedical Research Centre

IHC image of FOXP3 staining in a section of formalin-fixed frozen normal human tonsil* performed on a Leica BOND™ system using the standard protocol F. The section was then incubated with ab22510, 10ug/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.

*Tissue obtained from the Human Research Tissue Bank, supported by the NIHR Cambridge Biomedical Research Centre
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-FOXP3 antibody [mAbcam 22510] (ab22510)

IHC image of FOXP3 staining in a section of formalin-fixed paraffin-embedded normal human spleen* performed on a Leica BOND™ system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with EDTA buffer (pH9, epitope retrieval solution 2) for 20mins. The section was then incubated with ab22510, 10µg/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.

* Tissue obtained from the Human Research Tissue Bank, supported by the NIHR Cambridge Biomedical Research Centre

Western blot - Anti-FOXP3 antibody [mAbcam 22510] (ab22510)

All lanes: Anti-FOXP3 antibody [mAbcam 22510] (ab22510) at 1 µg/ml

Lane 1: HEK293 cells overexpressing human FOXP3

Lane 2: HEK293 cells overexpressing human FOXP3 with Human FOXP3 peptide (ab16809) at 1 µg/ml

Lysates/proteins at 20 µg per lane.

Secondary

All lanes: Rabbit Anti-Mouse IgG H&L (HRP) (ab6728) at 1/5000 dilution

Performed under reducing conditions.

Predicted band size: 48 kDa

Observed band size: 50 kDa

why is the actual band size different from the predicted?

Exposure time: 45 seconds
Clone mAbcam 22510 used to stain formalin-fixed paraffin-embedded sections of human tonsil. Antigens were heat retrieved with pH9 Tris-EDTA buffer.

These images were produced with neat supernatant produced with this clone (the stock of this antibody is purified from supernatant).

IHC image of ab22510 staining in human colon carcinoma formalin fixed paraffin embedded tissue section, performed on a Leica BondTM system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab22510, 20µg/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.

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