

Product datasheet

Anti-T-bet / Tbx21 antibody [4B10] ab91109

★★★★★ 2 Abreviews 15 References 4 Images

Overview

Product name	Anti-T-bet / Tbx21 antibody [4B10]
Description	Mouse monoclonal [4B10] to T-bet / Tbx21
Host species	Mouse
Tested applications	Suitable for: IHC-P, WB, Flow Cyt
Species reactivity	Reacts with: Mouse, Human
Immunogen	<i>E. coli</i> protein
Positive control	Th1 polarized Mouse CD4+ T cells. This antibody gave a positive result in IHC in the following FFPE tissue: Human normal tonsil.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.20 Preservative: 0.09% Sodium azide Constituent: PBS
Purity	Protein G purified
Clonality	Monoclonal
Clone number	4B10
Isotype	IgG1

Applications

Our [Abpromise guarantee](#) covers the use of **ab91109** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

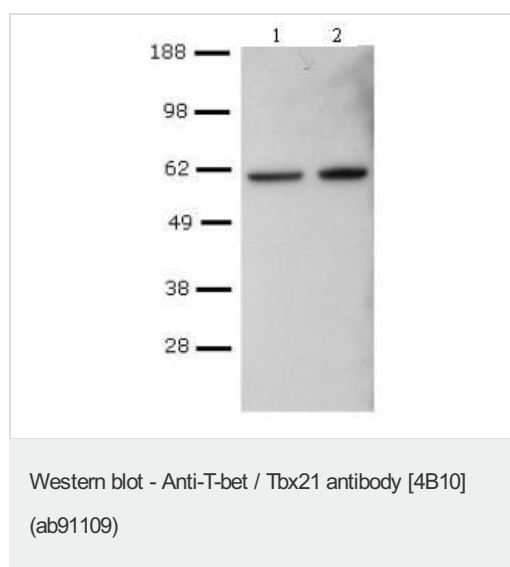
Application	Abreviews	Notes
IHC-P		Use a concentration of 5 µg/ml.

Application	Abreviews	Notes
WB	★★★★☆	Use a concentration of 2 µg/ml. Predicted molecular weight: 58 kDa.
Flow Cyt		Use 2µg for 10 ⁶ cells. ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

Target

Function	Transcription factor that controls the expression of the TH1 cytokine, interferon-gamma. Initiates TH1 lineage development from naive TH precursor cells both by activating TH1 genetic programs and by repressing the opposing TH2 programs.
Tissue specificity	T-cell specific.
Involvement in disease	Genetic variations in TBX21 are associated with susceptibility to asthma with nasal polyps and aspirin intolerance (ANPAI) [MIM:208550]. A condition consisting of asthma, aspirin sensitivity and nasal polyposis. Nasal polyposis is due to chronic inflammation of the paranasal sinus mucosa, leading to protrusion of edematous polyps into the nasal cavities.
Sequence similarities	Contains 1 T-box DNA-binding domain.
Cellular localization	Nucleus.

Images



All lanes : Anti-T-bet / Tbx21 antibody [4B10] (ab91109) at 2 µg/ml

Lane 1 : Lysates of CD4+ T cells (control)

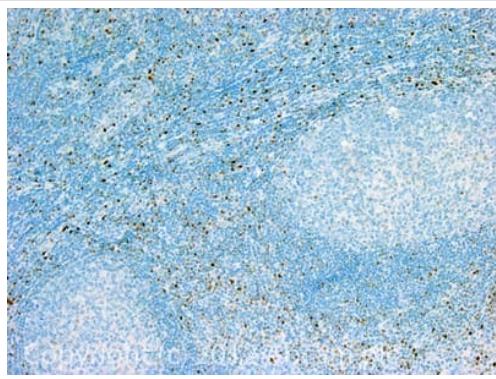
Lane 2 : Lysates of PMA and Ionomycin reactivated CD4+ T cells

Secondary

All lanes : HRP anti-mouse IgG

Predicted band size: 58 kDa

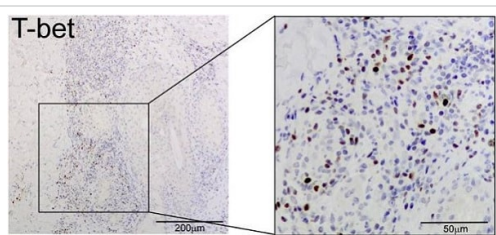
CD4+ T cells were sorted from Mouse spleen, activated with anti-mouse CD3 and anti-mouse CD28, followed by culture in Th1 polarizing conditions, and reactivation with PMA and Ionomycin.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-T-bet / Tbx21 antibody [4B10] (ab91109)

IHC image of T-bet / Tbx21 staining in Human normal tonsil formalin fixed paraffin embedded tissue section, performed on a Leica Bond™ 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 ab91109, 5µg/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.

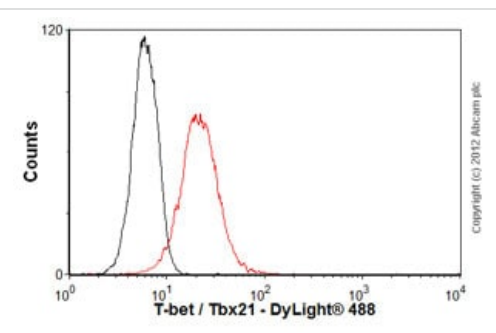
For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-T-bet / Tbx21 antibody [4B10] (ab91109)

ab91109 staining T-bet in Human acne lesion tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with 10% formaldehyde and antigen retrieval was by heat mediation performed in a microwave oven. Samples were incubated with primary antibody (1/200).

Kelhälä HL et al., PloS One, 9:e105238 (2014), Fig 5.;doi: 10.1371/journal.pone.0105238 Reproduced under the Creative Commons license <http://creativecommons.org/licenses/by/4.0/>



Flow Cytometry - Anti-T-bet / Tbx21 antibody [4B10] (ab91109)

Overlay histogram showing Jurkat cells stained with ab91109 (red line). The cells were fixed with 4% paraformaldehyde (10 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab91109, 2µg/1x10⁶ cells) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) (ab96879) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was mouse IgG1 [ICIGG1] (ab91353, 2µg/1x10⁶ cells) used under the same conditions. Acquisition of >5,000 events was performed. This antibody gave a positive signal in Jurkat cells fixed with 80% methanol (5 min)/permeabilized with 0.1% PBS-Tween for 20 min used under the same conditions.

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