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Anti-CD8 alpha/Cd8a Antibody Picoband®

Catalog Number: A02236-3

About Cd8a

The CD8 antigen is a cell surface glycoprotein found on most cytotoxic T lymphocytes that mediates efficient cell-cell interactions within the immune system. It is mapped to 2p11.2. The CD8 antigen, acting as a coreceptor, and the T-cell receptor on the T lymphocyte recognize antigen displayed by an antigen presenting cell (APC) in the context of class I MHC molecules. The functional coreceptor is either a homodimer composed of two alpha chains, or a heterodimer composed of one alpha and one beta chain. Both alpha and beta chains share significant homology to immunoglobulin variable light chains. This gene also encodes the CD8 alpha chain isoforms.

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Overview

Product Name	Anti-CD8 alpha/Cd8a Antibody Picoband®
Reactive Species	Mouse, Rat
Description	Boster Bio Anti-CD8 alpha/Cd8a Antibody Picoband® catalog # A02236-3. Tested in ELISA, Flow Cytometry, IHC, WB applications. This antibody reacts with 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	ELISA, Flow Cytometry, IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.01mg NaN3.
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	P01731

Technical Details

Immunogen	E.coli-derived mouse CD8 recombinant protein (Position: K39-K245).
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western

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	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, Mouse, Rat Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Mouse, Rat Flow Cytometry (Fixed), 1-3ug/1x10^6 cells, Mouse ELISA, 0.1-0.5ug/ml, - Note: For flow cytometry (FCM), suitable for fixed cells only. Not suitable for FACS or surface flow cytometry using live cells.

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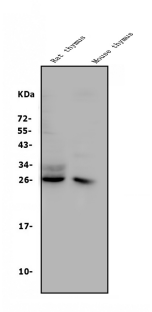
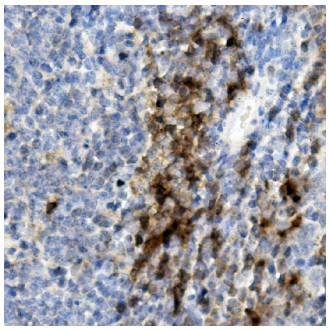
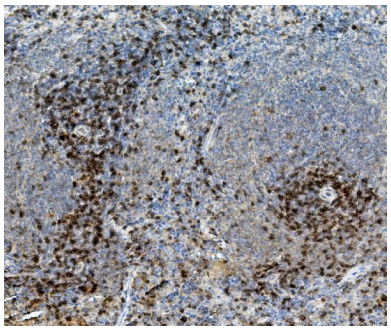
Anti-CD8 alpha/Cd8a Antibody Picoband® (A02236-3) Images



Western blot analysis of CD8 alpha/Cd8a using anti-CD8 alpha/Cd8a antibody (A02236-3). 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 50ug of sample under reducing conditions. Lane 1: rat thymus tissue lysates, Lane 2: mouse thymus tissue 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-CD8 alpha/Cd8a antigen affinity purified polyclonal antibody (Catalog # A02236-3) 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 1:10000 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 CD8 alpha/Cd8a at approximately 26KD. The expected band size for CD8 alpha/Cd8a is at 26KD.



IHC analysis of CD8 alpha/Cd8a using anti-CD8 alpha/Cd8a antibody (A02236-3). CD8 alpha/Cd8a was detected in paraffin-embedded section of mouse spleen 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 1ug/ml rabbit anti-CD8 alpha/Cd8a Antibody (A02236-3) 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 Strepavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.



IHC analysis of CD8 alpha/Cd8a using anti-CD8 alpha/Cd8a antibody (A02236-3). CD8 alpha/Cd8a was detected in paraffin-embedded section of rat spleen 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 1ug/ml rabbit anti-CD8 alpha/Cd8a Antibody (A02236-3) 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 Strepavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

Flow Cytometry analysis of mouse spleen tissues using anti-CD8 alpha/Cd8a antibody (A02236-3).Overlay histogram showing mouse spleen tissues stained with A02236-3 (Blue line).The tissues were fixed with 4% paraformaldehyde and

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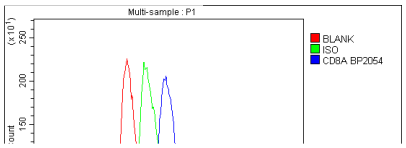

blocked with 10% normal goat serum. And then incubated with rabbit anti-CD8 alpha/Cd8a Antibody (A02236-3,1ug/1x106 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x106 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x106) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

4 Publications Citing This Product

1. PubMed ID: 10.1016/j.fertnstert.2006.11.063, Endocrine function and lymphocyte infiltration of newborn rat ovaries after ultrarapid freezing and allotransplantation

2. PubMed ID: 33889520, Liu Q,Hao Y,Du R,Hu D,Xie J,Zhang J,Deng G,Liang N,Tian T,Käsmann L,Rades D,Rim CH,Hu P,Zhang J.Radiotherapy programs neutrophils to an antitumor phenotype by inducing mesenchymal-epithelial transition.Transl Lung Cancer Res.2021 Mar;10(3):1424-1443.doi:10.21037/tlcr-21-152.PMID:33889520;PMCID:PMC8044478.

3. PubMed ID: 32802195, Dai X,Lu L,Deng S,Meng J,Wan C,Huang J,Sun Y,Hu Y,Wu B,Wu G,Lovell JF,Jin H,Yang K.USP7 targeting modulates anti-tumor immune response by reprogramming Tumor-associated Macrophages in Lung Cancer.Theranostics.2020 Jul 23;10(20):9332-9347.doi:10.7150/thno.47137.PMID:32802195;PMCID:PMC7415808.

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