

Anti-Sca1/Ly6A/E Antibody Picoband®

Catalog Number: A30403

About Ly6a

Stem cell antigen-1 (Sca-1) is a mouse glycosyl phosphatidylinositol-anchored protein and a cell surface marker found on hematopoietic stem cells (HSCs). It is encoded by the strain-specific Ly-6 E/A allelic gene. Sca-1 has been discovered in several non hematopoietic tissues and can be used to enrich progenitor cell populations other than HSC. It is suggested that Sca-1 could be involved in regulating both B and T cell activation.

Overview

Product Name	Anti-Sca1/Ly6A/E Antibody Picoband®
Reactive Species	Mouse
Description	Boster Bio Anti-Sca1/Ly6A/E Antibody Picoband® catalog # A30403. Tested in Flow Cytometry, IHC, WB applications. This antibody reacts with Mouse. 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	Flow Cytometry, IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg NaN ₃ .
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	P05533

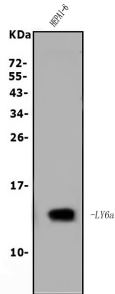
Technical Details

Immunogen	A synthetic peptide corresponding to a sequence in the middle region of mouse Sca1/Ly6A/E.
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.

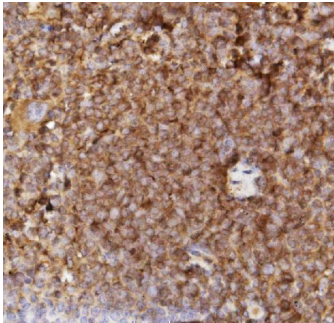
Suggested Dilutions

Western blot, 0.1-0.5ug/ml, Mouse
Immunohistochemistry (Paraffin-embedded Section), 2-5ug/ml, Mouse
Flow Cytometry (Fixed), 1-3ug/1x10⁶ cells, Mouse

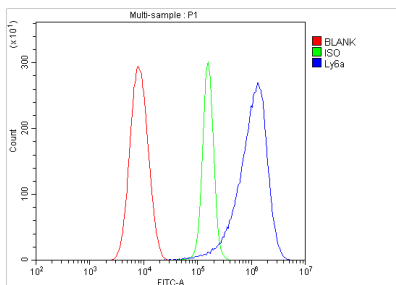
Anti-Sca1/Ly6A/E Antibody Picoband® (A30403) Images



Western blot analysis of Sca1/Ly6A/E using anti-Sca1/Ly6A/E antibody (A30403). 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: mouse HEPA1-6 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-Sca1/Ly6A/E antigen affinity purified polyclonal antibody (Catalog # A30403) 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 Sca1/Ly6A/E at approximately 14KD. The expected band size for Sca1/Ly6A/E is at 14KD.



IHC analysis of Sca1/Ly6A/E using anti-Sca1/Ly6A/E antibody (A30403). Sca1/Ly6A/E 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 2ug/ml rabbit anti-Sca1/Ly6A/E Antibody (A30403) 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.



Flow Cytometry analysis of HEPA1-6 cells using anti-Sca1/Ly6A/E antibody (A30403). Overlay histogram showing HEPA1-6 cells stained with A30403 (Blue line). The cells were fixed with 4% paraformaldehyde and blocked with 10% normal goat serum. And then incubated with rabbit anti-Sca1/Ly6A/E Antibody (A30403, 1 ug/1x10⁶ cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x10⁶) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

1 Publications Citing This Product

1. PubMed ID: 22319244, BMP9-Induced Osteogenetic Differentiation and Bone Formation of Muscle-Derived Stem Cells

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Anti-Sca1/Ly6A/E Antibody

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