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antibody and ELISA experts

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Anti-CD90/Thy1 Antibody Picoband®

Catalog Number: A01818

About Thy1

CD90 (Cluster of Differentiation 90) or Thy-1 is a 25–37 kDa heavily N-glycosylated, glycophosphatidylinositol (GPI) anchored conserved cell surface protein with a single V-like immunoglobulin domain, originally discovered as a thymocyte antigen. The CD90 gene is mapped to 11q23.3. Thy-1 can be used as a marker for a variety of stem cells and for the axonal processes of mature neurons. Structural study of Thy-1 lead to the foundation of the Immunoglobulin superfamily, of which it is the smallest member, and led to the first biochemical description and characterization of a vertebrate GPI anchor.

Overview

Product Name	Anti-CD90/Thy1 Antibody Picoband®
Reactive Species	Mouse, Rat
Description	Boster Bio Anti-CD90/Thy1 Antibody Picoband® catalog # A01818. Tested in IF, 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	IF, IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na2HPO4.
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	P01831

Technical Details

Immunogen	E.coli-derived mouse CD90/Thy1 recombinant protein (Position: Q20-C131). Mouse CD90/Thy1 shares 63.4% and 81.3% amino acid (aa) sequence identity with human and rat CD90/Thy1, respectively.
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

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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, Rat Immunohistochemistry (Paraffin-embedded Section), 2-5ug/ml, Mouse, Rat Immunofluorescence, 5 ug/ml, Rat

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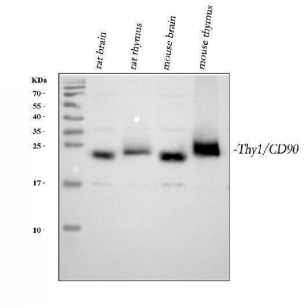
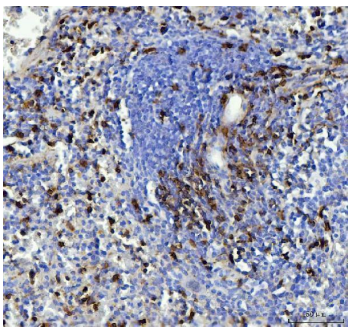
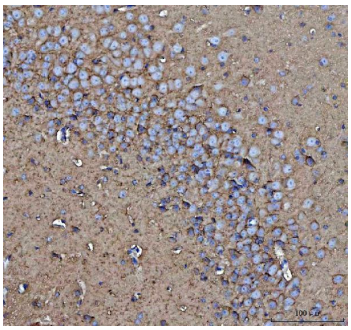
Anti-CD90/Thy1 Antibody Picoband® (A01818) Images



Western blot analysis of CD90/Thy1 using anti-CD90/Thy1 antibody (A01818). 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 30 ug of sample under reducing conditions. Lane 1: rat brain tissue lysates, Lane 2: rai thymus tissue lysates, Lane 3: mouse brain tissue lysates, Lane 4: mouse thymus tissue lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA 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-CD90/Thy1 antigen affinity purified polyclonal antibody (Catalog # A01818) 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 CD90/Thy1 at approximately 22 kDa. The expected band size for CD90/Thy1 is at 18 kDa.



IHC analysis of CD90/Thy1 using anti-CD90/Thy1 antibody (A01818). CD90/Thy1 was detected in a paraffin-embedded section of mouse spleen tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-CD90/Thy1 Antibody (A01818) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



IHC analysis of CD90/Thy1 using anti-CD90/Thy1 antibody (A01818). CD90/Thy1 was detected in a paraffin-embedded section of mouse brain tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-CD90/Thy1 Antibody (A01818) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

IHC analysis of CD90/Thy1 using anti-CD90/Thy1 antibody (A01818). CD90/Thy1 was detected in a paraffin-embedded section of rat brain tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval

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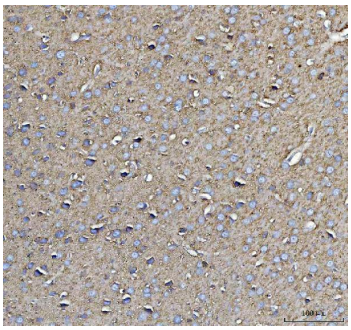
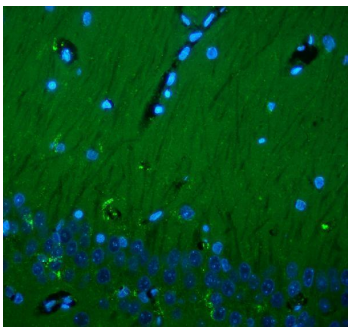


solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-CD90/Thy1 Antibody (A01818) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



IF analysis of CD90/Thy1 using anti-CD90/Thy1 antibody (A01818). CD90/Thy1 was detected in a paraffin-embedded section of rat brain tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 5 ug/mL rabbit anti-CD90/Thy1 Antibody (A01818) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) was used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

10 Publications Citing This Product

1. PubMed ID: 10.5114/fn.2018.76615, The impact of bone marrow-derived mesenchymal stem cells on neovascularisation in rats with brain injury.

2. PubMed ID: PMID:30210698, Identification and differentiation therapy strategy of pterygium in vitro

3. PubMed ID: 10.1007/s10616-018-0188-6, Co-cultured the MSCs and cardiomyocytes can promote the growth of cardiomyocytes

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Anti-CD90/Thy1 Antibody

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