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antibody and ELISA experts

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3942 B Valley Ave, Pleasanton, CA 94566
888-466-3604 | support@bosterbio.com | www.bosterbio.com

Anti-CD90/Thy1 Antibody Picoband®

Catalog Number: A01818-1

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	Human, Mouse, Rat
Description	Boster Bio Anti-CD90/Thy1 Antibody Picoband® catalog # A01818-1. Tested in ELISA, IHC, WB applications. This antibody reacts with Human, 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, 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	P04216

Technical Details

Immunogen	E.coli-derived human CD90/Thy1 recombinant protein (Position: Q20-H111).
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.
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.

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Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.1-0.25ug/ml, Mouse, Rat Immunohistochemistry (Paraffin-embedded Section), 2-5ug/ml, Human ELISA, 0.1-0.5ug/ml, -

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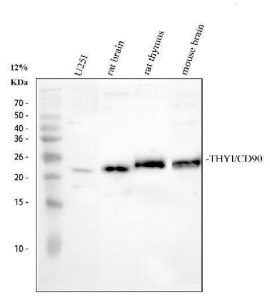
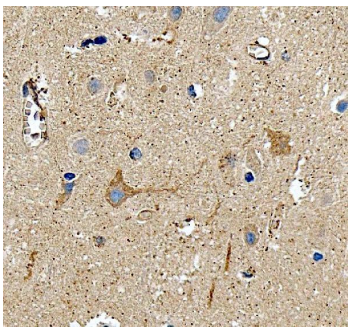
Anti-CD90/Thy1 Antibody Picoband® (A01818-1) Images



Western blot analysis of CD90/Thy1 using anti-CD90/Thy1 antibody (A01818-1). Electrophoresis was performed on a 12% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human U251 whole cell lysates, Lane 2: rat brain tissue lysates, Lane 3: rat thymus tissue lysates, Lane 4: mouse brain 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 # A01818-1) at 0.25 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 ECL Plus Western Blotting Substrate (Catalog # AR1196-200) 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 (A01818-1). CD90/Thy1 was detected in a paraffin-embedded section of human 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 (A01818-1) 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.

4 Publications Citing This Product

1. PubMed ID: -, Wu,H.,Jiang,X.,Li,Y.,Zhou,Y.,Zhang,T.,Zhi,P.,Gao,J.,Engineering Stem Cell Derived Biomimetic Vesicles for Versatility and Effective Targeted Delivery.Adv. Funct.Mater.2020, 30, 2006169.https://doi.org/10.1002/adfm.202006169

2. PubMed ID: 22553557, Differentiation of mesenchymal stem cell in the microenviroment of retinitis pigmentosa

3. PubMed ID: 28341839, Therapeutic efficacy of neural stem cells originating from umbilical cord-derived mesenchymal stem cells in diabetic retinopathy

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