

Anti-CD90/Thy1 Picoband Antibody

Catalog # ABO10216

Product Information

Application	WB, IHC-P
Primary Accession	P01831
Host	Rabbit
Reactivity	Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Thy-1 membrane glycoprotein(Thy1) detection. Tested with WB, IHC-P in Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	21838
Other Names	Thy-1 membrane glycoprotein, Thy-1 antigen, CD90, Thy1, Thy-1
Calculated MW	18080
Application Details	Immunohistochemistry(Paraffin-embedded Section), 0.5-1 μ g/ml, Mouse, By Heat Western blot, 0.1-0.5 μ g/ml, Mouse, Rat
Subcellular Localization	Cell membrane; Lipid-anchor, GPI-anchor.
Source	Eukaryota
Protein Name	Thy-1 membrane glycoprotein
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg NaN ₃ .
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.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins.
Storage	At -20 °C for one year. After r ° Constitution, at 4 °C for one month. It ° Can also be aliquotted and stored frozen at -20 °C for a longer time.Avoid repeated freezing and thawing.

Protein Information

Name	Thy1
Synonyms	Thy-1
Function	May play a role in cell-cell or cell-ligand interactions during synaptogenesis and other events in the brain.
Cellular Location	Cell membrane; Lipid-anchor, GPI-anchor.

Background

CD90 (Cluster of Differentiation 90) or Thy-1 is a 25–37 kDa heavily N-glycosylated, glycosphosphatidylinositol (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 led 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.

Images

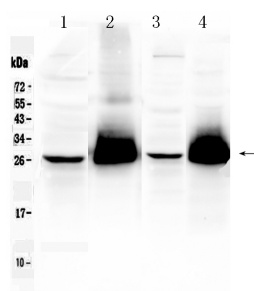


Figure 1. Western blot analysis of CD90/Thy1 using anti-CD90/Thy1 antibody (ABO10216). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: mouse brain tissue lysates, Lane 2: mouse thymus tissue lysates, Lane 3: mouse lung tissue lysates, Lane 4: rat 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- CD90/Thy1 antigen affinity purified polyclonal antibody (Catalog # ABO10216) at 0.5 μ g/mL overnight at 4 $^{\circ}$ 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 with Tanon 5200 system. A specific band was detected for CD90/Thy1 at approximately 26KD. The expected band size for CD90/Thy1 is at 18KD.

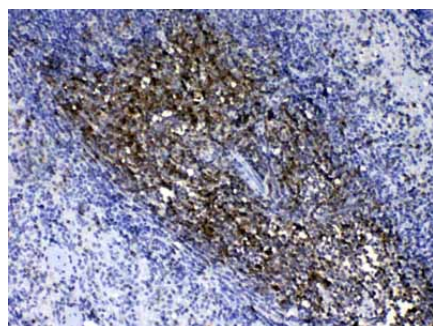


Figure 2. IHC analysis of CD90/Thy1 using anti-CD90/Thy1 antibody (ABO10216).CD90/Thy1 was detected in paraffin-embedded section of mouse spleen tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 μ g/ml rabbit anti- CD90/Thy1 Antibody (ABO10216) overnight at 4 $^{\circ}$ 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) with DAB as the chromogen.

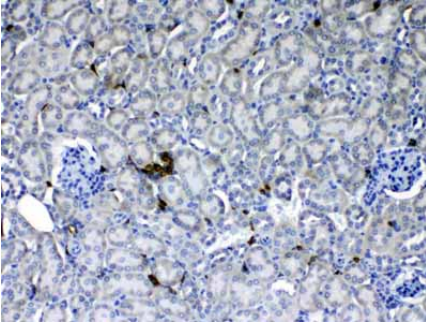


Figure 3. IHC analysis of CD90/Thy1 using anti-CD90/Thy1 antibody (ABO10216). CD90/Thy1 was detected in paraffin-embedded section of mouse kidney tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 µg/ml rabbit anti- CD90/Thy1 Antibody (ABO10216) 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) with DAB as the chromogen.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.