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

Anti-CD1a Antibody Picoband®

Catalog Number: PA1875

About CD1A

CD1A (Thymocyte antigen CD1A) also known as CD1, is a human protein encoded by the CD1A gene. CD1A is 1 of 5 distinct CD1 genes that are variably conserved in different mammalian species. This gene encodes a member of the CD1 family of transmembrane glycoproteins, which are structurally related to the major histocompatibility complex (MHC) proteins and form heterodimers with beta-2-microglobulin.The CD1A gene is mapped on 1q23.1. The CD1 proteins mediate the presentation of primarily lipid and glycolipid antigens of self or microbial origin to T cells. CD1A is concentrated in the early or recycling endosome. Moody et al. (2004) reported that CD1A presents to T cells a family of previously unknown lipopeptides from Mycobacterium tuberculosis, named didehydroxymycobactins because of their structural relation to mycobactin siderophores. The protein encoded by this gene localizes to the plasma membrane and to recycling vesicles of the early endocytic system. Apolipoprotein E (107741) binds lipid antigens and delivers them by receptor-mediated uptake into endosomal compartments containing CD1 in antigen-presenting cells.

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Overview

Product Name	Anti-CD1a Antibody Picoband®
Reactive Species	Human
Description	Boster Bio Anti-CD1a Antibody catalog # PA1875. Tested in WB applications. This antibody reacts with Human. 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	WB
Clonality	Polyclonal
Formulation	Each vial contains antibody formulated with stabilizing components, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3. *This antibody is supplied in a stabilized formulation. Compatibility with conjugation reactions depends on the chemistry of the conjugation method used. For conjugation methods that are not compatible with the stabilizing components present in this formulation, a carrier-free antibody format is required.
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	P06126

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Technical Details

Immunogen	A synthetic peptide corresponding to a sequence in the middle region of human CD1a.
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.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.1-0.5ug/ml, Human

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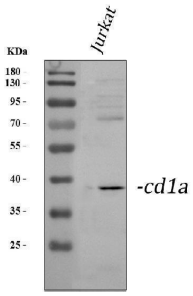
Anti-CD1a Antibody Picoband® (PA1875) Images



Western blot analysis of CD1a using anti-CD1a antibody (PA1875). 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: human Jurkat whole cell 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-CD1a antigen affinity purified polyclonal antibody (Catalog # PA1875) 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 CD1a at approximately 37 kDa. The expected band size for CD1a is at 37 kDa.

Anti-CD1a Antibody

For Research Use Only. Not for use in diagnostic procedures.