BOSTER
antibody and ELISA experts

BOSTER BIOLOGICAL TECHNOLOGY
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Anti-CD39/Entpd1 Antibody Picoband®

Catalog Number: A03196-4

About Entpd1

Ectonucleoside triphosphate diphosphohydrolase-1 (gene: ENTPD1; protein: NTPDase1) also known as CD39 (Cluster of Differentiation 39), is a typical cell surface enzyme with a catalytic site on the extracellular face. Enables adenosine-diphosphatase activity and nucleoside-triphosphatase activity. Involved in ADP catabolic process. Acts upstream of or within G protein-coupled receptor signaling pathway; platelet activation; and purine ribonucleoside diphosphate catabolic process. Located in basement membrane. Is active in external side of plasma membrane. Is expressed in several structures, including alimentary system; genitourinary system; heart; nervous system; and respiratory system. Human ortholog(s) of this gene implicated in hereditary spastic paraplegia 64. Orthologous to human ENTPD1 (ectonucleoside triphosphate diphosphohydrolase 1).

Overview

Product Name	Anti-CD39/Entpd1 Antibody Picoband®
Reactive Species	Mouse, Rat
Description	Boster Bio Anti-CD39/Entpd1 Antibody Picoband® catalog # A03196-4. Tested in ELISA, Flow Cytometry, 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	ELISA, Flow Cytometry, IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
Storage Instructions	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 freezing and thawing.
Host	Rabbit
Uniprot ID	P55772

Technical Details

Immunogen	E.coli-derived mouse CD39/Entpd1 recombinant protein (Position: Q39-S475).
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 µg/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.1-0.25 ug/ml, Mouse, Rat Immunohistochemistry(Paraffin-embedded Section), 2-5 ug/ml, Rat Flow Cytometry (Fixed), 1-3 ug/1x10^6 cells, Mouse ELISA, 0.1-0.5 ug/ml, -

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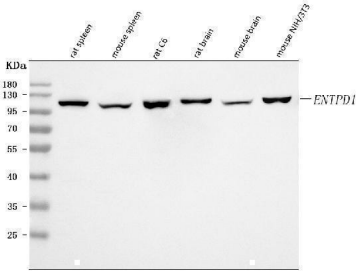
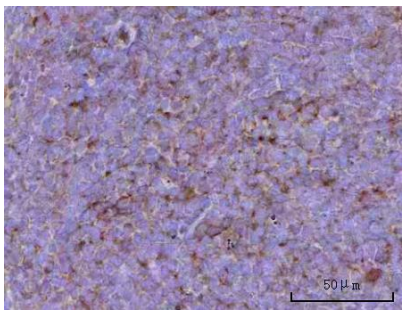
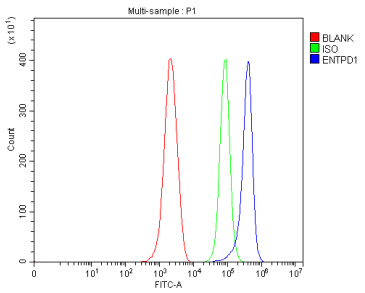
Anti-CD39/Entpd1 Antibody Picoband® (A03196-4) Images



Western blot analysis of CD39/Entpd1 using anti-CD39/Entpd1 antibody (A03196-4). 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 spleen tissue lysates, Lane 2: mouse spleen tissue lysates, Lane 3: rat C6 whole cell lysates, Lane 4: rat brain tissue lysates, Lane 5: mouse brain tissue lysates, Lane 6: mouse NIH/3T3 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-CD39/Entpd1 antigen affinity purified polyclonal antibody (Catalog # A03196-4) 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 Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for CD39/Entpd1 at approximately 100 kDa. The expected band size for CD39/Entpd1 is at 58 kDa.



IHC analysis of CD39/Entpd1 using anti-CD39/Entpd1 antibody (A03196-4). CD39/Entpd1 was detected in a paraffin-embedded section of rat 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-CD39/Entpd1 Antibody (A03196-4) 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.



Flow Cytometry analysis of ANA-1 cells using anti-CD39/Entpd1 antibody (A03196-4). Overlay histogram showing ANA-1 cells stained with A03196-4 (Blue line). The cells were fixed with 4% paraformaldehyde and blocked with 10% normal goat serum. And then incubated with rabbit anti-CD39/Entpd1 Antibody (A03196-4, 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.

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