

Anti-CXADR Antibody Picoband®

Catalog Number: A02747-1

About CXADR

CXADR(Coxsackie virus and adenovirus receptor) is a protein that in humans is encoded by the CXADR gene, also known as CAR,CVB3-binding protein, Coxsackievirus B-adenovirus receptor. The CAR cDNA encodes a predicted 365-amino acid polypeptide that contains a single transmembrane domain and is a member of the immunoglobulin superfamily. By Northern blot analysis, they detected highest expression of 1.4-kb and 6-kb CXADR transcripts in pancreas, brain, heart, small intestine, testis, and prostate, lower expression in liver and lung, and no expression in kidney, placenta, peripheral blood leukocytes, thymus, and spleen. In comparison, mouse Cxadr showed highest expression in liver, and lower levels in kidney, heart, lung, and brain. The protein encoded by this gene is a type I membrane receptor for group B coxsackie viruses and subgroup C adenoviruses. Pseudogenes of this gene are found on chromosomes 15, 18, and 21. CAR is strongly expressed in the developing central nervous system. It functions as a homophilic and also as a heterophilic cell adhesion molecule through its interactions with extracellular matrix glycoproteins, such as: fibronectin, agrin, laminin-1 and tenascin-R.

Overview

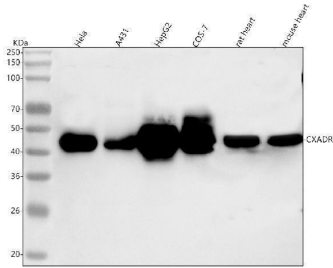
Product Name	Anti-CXADR Antibody Picoband®
Reactive Species	Human, Monkey, Mouse, Rat
Description	Boster Bio Anti-CXADR Antibody Picoband® catalog # A02747-1. Tested in WB, IHC, ICC/IF, FCM, ELISA applications. This antibody reacts with Human, Monkey, Mouse, Rat. The brand Picoband indicates this is 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, IF, IHC, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ .
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	P78310

Technical Details

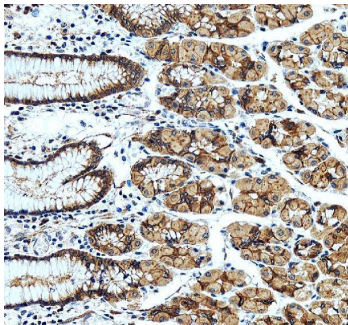
Immunogen	E.coli-derived human CXADR recombinant protein (Position: E35-V365). Human CXADR shares 91.2% and 91.5% amino acid (aa) sequence identity with mouse and rat CXADR, respectively.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P) and ICC.
Form	Lyophilized

Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 µg/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.25-0.5 ug/ml, Human, Monkey, Mouse, Rat Immunohistochemistry (Paraffin-embedded Section), 2-5 ug/ml, Human Immunocytochemistry/Immunofluorescence, 5 ug/ml, Human Flow Cytometry (Fixed), 1-3 ug /1x10 ⁶ cells, Human ELISA, 0.1-0.5 ug/ml, -

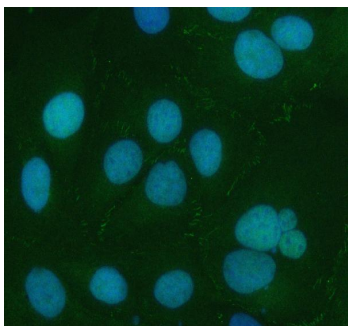
Anti-CXADR Antibody Picoband® (A02747-1) Images



Western blot analysis of CXADR using anti-CXADR antibody (A02747-1). 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 Hela whole cell lysates, Lane 2: human A431 whole cell lysates, Lane 3: human HepG2 whole cell lysates, Lane 4: monkey COS-7 whole cell lysates, Lane 5: rat heart tissue lysates, Lane 6: mouse heart 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-CXADR antigen affinity purified polyclonal antibody (Catalog # A02747-1) 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 CXADR at approximately 45 kDa. The expected band size for CXADR is at 40 kDa.

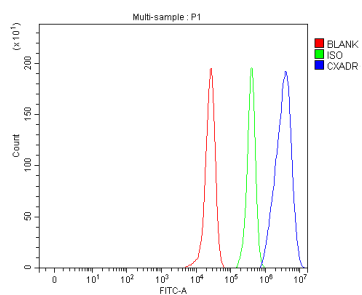


IHC analysis of CXADR using anti-CXADR antibody (A02747-1). CXADR was detected in a paraffin-embedded section of human stomach tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-CXADR Antibody (A02747-1) 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.



IF analysis of CXADR using anti-CXADR antibody (A02747-1). CXADR was detected in an immunocytochemical section of U2OS cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5 ug/mL rabbit anti-CXADR Antibody (A02747-1) 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.

Flow Cytometry analysis of HepG2 cells using anti-CXADR antibody (A02747-1). Overlay histogram showing HepG2 cells stained with A02747-1 (Blue line). The cells were fixed



with 4% paraformaldehyde and blocked with 10% normal goat serum. And then incubated with rabbit anti-CXADR Antibody (A02747-1, 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 (Red line) was also used as a control.

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Anti-CXADR Antibody

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