

Anti-CDR2 Antibody Picoband™

Catalog Number: A02973-2

About CDR2

Cerebellar degeneration-related protein 2 is a protein that in humans is encoded by the CDR2 gene. By a combination of study of rodent/human somatic cell hybrids and in situ hybridization, this gene is assigned to 16p13.1-p12. The onconeural cerebellar degeneration-related antigen Cdr2 is associated with paraneoplastic syndromes. Neoplastic expression of Cdr2 in ovary and breast tumors triggers an autoimmune response that suppresses tumor growth by developing tumor immunity, but culminates in cerebellar degeneration when Cdr2-specific immune cells recognize neuronal Cdr2.

Overview

Product Name	Anti-CDR2 Antibody Picoband™
Reactive Species	Human
Description	Boster Bio Anti-CDR2 Antibody Picoband™ catalog # A02973-2. Tested in ELISA, Flow Cytometry, IHC, WB applications. This antibody reacts with Human.
Application	ELISA, Flow Cytometry, IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg NaN ₃ .
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	Q01850

Technical Details

Immunogen	E.coli-derived human CDR2 recombinant protein (Position: M1-D441).
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
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.

Suggested Dilutions

Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.

If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.

Some PubMed article(s) citing the expression level of this target are as follows:

Boster Bio's internal QC testing used:

Western blot, 0.25-0.5ug/ml, Human

Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human

Flow Cytometry, 1-3ug/1x10⁶ cells, Human

Direct ELISA, 0.1-0.5ug/ml, Human

Anti-CDR2 Antibody Picoband™ (A02973-2) Images

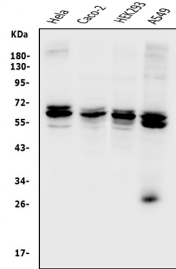


Figure 1. Western blot analysis of CDR2 using anti-CDR2 antibody (A02973-2).

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 30ug of sample under reducing conditions.

Lane 1: human HELA whole cell lysates,
Lane 2: human CACO-2 whole cell lysates,
Lane 3: human HEK293 whole cell lysates,
Lane 4: human A549 whole cell 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-CDR2 antigen affinity purified polyclonal antibody (Catalog # A02973-2) 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 CDR2 at approximately 62KD. The expected band size for CDR2 is at 62KD.

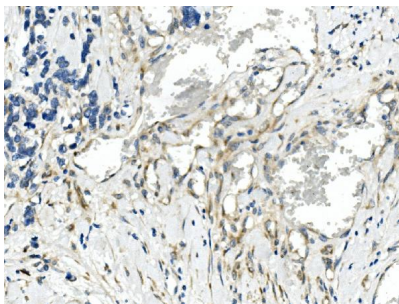


Figure 2. IHC analysis of CDR2 using anti-CDR2 antibody (A02973-2).

CDR2 was detected in paraffin-embedded section of human lung cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-CDR2 Antibody (A02973-2) 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) (Catalog # SA1022) with DAB as the chromogen.

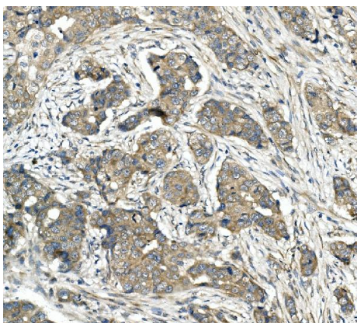
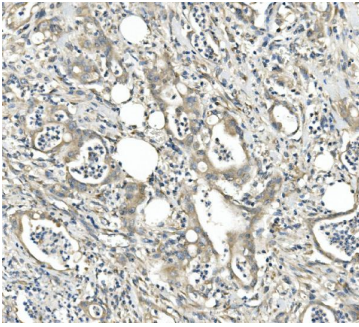


Figure 3. IHC analysis of CDR2 using anti-CDR2 antibody (A02973-2).

CDR2 was detected in paraffin-embedded section of human mammary cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-CDR2 Antibody (A02973-2) 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) (Catalog # SA1022) with DAB as the chromogen.

Figure 4. IHC analysis of CDR2 using anti-CDR2 antibody (A02973-2).



CDR2 was detected in paraffin-embedded section of human rectal cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-CDR2 Antibody (A02973-2) 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) (Catalog # SA1022) with DAB as the chromogen.

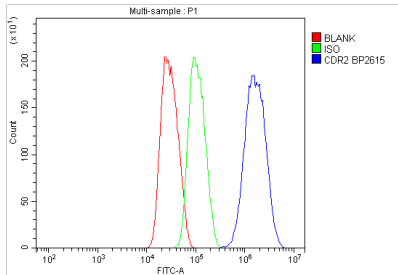


Figure 5. Flow Cytometry analysis of HepG2 cells using anti-CDR2 antibody (A02973-2).

Overlay histogram showing HepG2 cells stained with A02973-2 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-CDR2 Antibody (A02973-2, 1ug/1x10⁶ cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

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