

Anti-HER2/ERBB2 Antibody Picoband®

Catalog Number: A00010-5

About ERBB2

Receptor tyrosine-protein kinase erbB-2, also known as CD340 (cluster of differentiation 340), proto-oncogene Neu, Erbb2 (rodent), or ERBB2 (human), is a protein that in humans is encoded by the ERBB2 gene. And it is also frequently called HER2 (from human epidermal growth factor receptor 2) or HER2/neu. This gene encodes a member of the epidermal growth factor (EGF) receptor family of receptor tyrosine kinases. This protein has no ligand binding domain of its own and therefore cannot bind growth factors. Amplification and/or overexpression of this gene has been reported in numerous cancers, including breast and ovarian tumors. Alternative splicing results in several additional transcript variants, some encoding different isoforms and others that have not been fully characterized.

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Overview

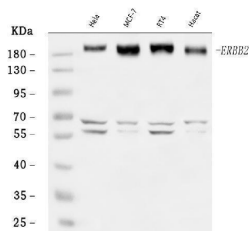
Product Name	Anti-HER2/ERBB2 Antibody Picoband®
Reactive Species	Human
Description	Boster Bio Anti-HER2/ERBB2 Antibody Picoband® catalog # A00010-5. Tested in ELISA, Flow Cytometry, IHC, WB applications. This antibody reacts with Human. The brand Picoband indicates this is a premium antibody that guarantees 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	ELISA, Flow Cytometry, IHC, 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	P04626

Technical Details

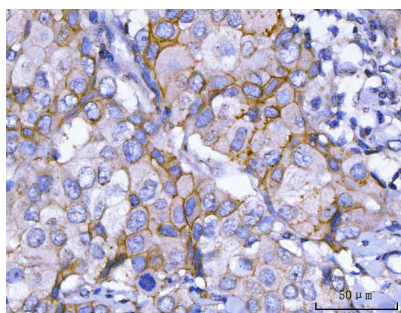
Immunogen	E.coli-derived human HER2/ERBB2 recombinant protein (Position: A980-R1230).
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Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super 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	Western blot, 0.25-0.5 ug/ml, Human Immunohistochemistry(Paraffin-embedded Section), 2-5 ug/ml, Human Flow Cytometry (Fixed), 1-3 ug/1x10⁶ cells, Human ELISA, 0.1-0.5 ug/ml, - Note: For flow cytometry (FCM), validated for fixed cells only. Not validated for FACS or surface flow cytometry using live cells.

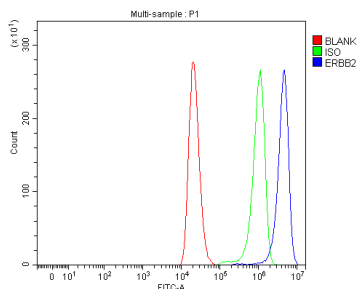
Anti-HER2/ERBB2 Antibody Picoband® (A00010-5) Images



Western blot analysis of HER2/ERBB2 using anti-HER2/ERBB2 antibody (A00010-5). 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 MCF-7 whole cell lysates, Lane 3: human RT4 whole cell lysates, Lane 4: human Hacat 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-HER2/ERBB2 antigen affinity purified polyclonal antibody (Catalog # A00010-5) 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 HER2/ERBB2 at approximately 185 kDa. The expected band size for HER2/ERBB2 is at 138 kDa.



IHC analysis of HER2/ERBB2 using anti-HER2/ERBB2 antibody (A00010-5). HER2/ERBB2 was detected in a paraffin-embedded section of human breast cancer 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-HER2/ERBB2 Antibody (A00010-5) 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 293T cells using anti-HER2/ERBB2 antibody (A00010-5). Overlay histogram showing 293T cells stained with A00010-5 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-HER2/ERBB2 Antibody (A00010-5, 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.

Anti-HER2/ERBB2 Antibody

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