

Anti-ErbB 2/ERBB2 Antibody Picoband™

Catalog Number: A00010-2

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.

Overview

Product Name	Anti-ErbB 2/ERBB2 Antibody Picoband™
Reactive Species	Human
Description	Boster Bio Anti-ErbB 2/ERBB2 Antibody Picoband™ catalog # A00010-2. Tested in IHC, WB applications. This antibody reacts with Human.
Application	IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na2HPO4.
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	P04626

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human ErbB 2, identical to the related mouse and rat sequences.
Predicted Reactive Species	Chicken
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	<p>Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.</p> <p>If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.</p> <p>Some PubMed article(s) citing the expression level of this target are as follows:</p> <p>Boster Bio's internal QC testing used:</p> <p>Immunohistochemistry (Paraffin-embedded Section), 2-5ug/ml, Human, By Heat</p> <p>Western blot, 0.1-0.5ug/ml, Human</p>

Anti-ErbB 2/ERBB2 Antibody Picoband™ (A00010-2) Images

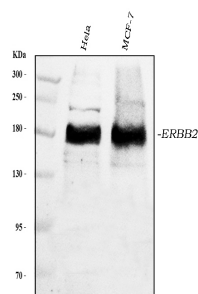


Figure 1. Western blot analysis of ErbB 2 using anti-ErbB 2 antibody (A00010-2).

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 30 ug of sample under reducing conditions.

Lane 1: human Hela whole cell lysates,
Lane 2: human MCF-7 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-ErbB 2 antigen affinity purified polyclonal antibody (Catalog # A00010-2) 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 ErbB 2 at approximately 185 kDa. The expected band size for ErbB 2 is at 138 kDa.

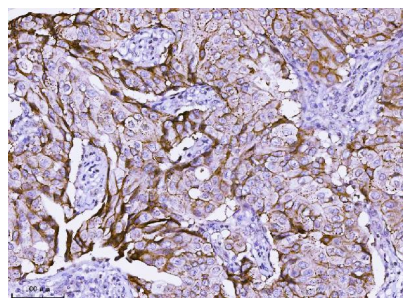


Figure 2. IHC analysis of ErbB 2 using anti-ErbB 2 antibody (A00010-2).

ErbB 2 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-ErbB 2 Antibody (A00010-2) 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.

6 Publications Citing This Product

1. PubMed ID: 10.3390/ijms14048422, MiR199b Suppresses Expression of Hypoxia-Inducible Factor 1alpha (HIF-1alpha) in Prostate Cancer Cells
2. PubMed ID: 10.1016/j.ijpharm.2013.12.016, Incorporation of lapatinib into core-shell nanoparticles improves both the solubility and anti-glioma effects of the drug
3. PubMed ID: 10.1038/aps.2014.26, Lapatinib-incorporated lipoprotein-like nanoparticles: preparation and a proposed breast cancer-targeting mechanism

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