

## Anti-EGFR Antibody Picoband®

Catalog Number: PB9016

### About EGFR

The epidermal growth factor receptor (EGFR; ErbB-1; HER1 in humans) is the cell-surface receptor for members of the epidermal growth factor family (EGF-family) of extracellular protein ligands. It is a member of the ErbB family of receptors, a subfamily of four closely related receptor tyrosine kinases: EGFR (ErbB-1), HER2/c-neu (ErbB-2), Her 3 (ErbB-3) and Her 4 (ErbB-4). EGFR exists on the cell surface and is activated by binding of its specific ligands, including epidermal growth factor and transforming growth factor alpha (TGFalpha). EGFR and its ligands are cell signaling molecules involved in diverse cellular functions, including cell proliferation, differentiation, motility, and survival, and in tissue development. Mutations that lead to EGFR overexpression (known as upregulation) or overactivity have been associated with a number of cancers, including lung cancer and glioblastoma multiforme. In this latter case a more or less specific mutation of EGFR, called EGFRvIII is often observed.

### Overview

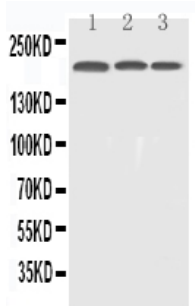
Product Name	Anti-EGFR Antibody Picoband®
Reactive Species	Human, Rat
Description	Boster Bio Anti-EGFR Antibody Picoband® catalog # PB9016. Tested in IF, ICC, WB applications. This antibody reacts with Human, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, 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	IF, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains antibody formulated with stabilizing components, 0.9 mg NaCl, 0.2 mg Na <sub>2</sub> HPO <sub>4</sub> , and 0.05 mg NaN <sub>3</sub> . *This antibody is supplied in a stabilized formulation. Compatibility with conjugation reactions depends on the chemistry of the conjugation method used. For conjugation methods that are not compatible with the stabilizing components present in this formulation, a carrier-free antibody format is required.
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	P00533

### Technical Details

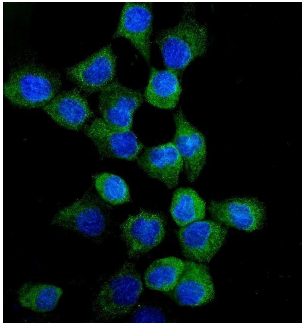
Immunogen	E.coli-derived human EGFR recombinant protein (Position: L25-K346). Human EGFR shares 89% amino acid (aa) sequence identity with mouse EGFR.
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Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.
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, 0.1-0.5ug/ml, Human, Rat Immunocytochemistry/Immunofluorescence, 2ug/ml, Human

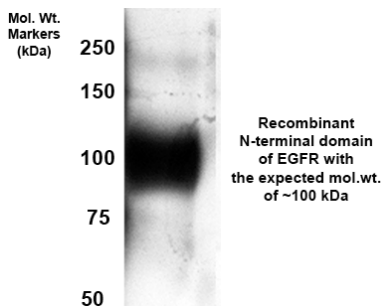
## Anti-EGFR Antibody Picoband® (PB9016) Images



Western blot analysis of EGFR using anti-EGFR antibody (PB9016). 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 50ug of sample under reducing conditions. Lane 1: HELA Whole Cell Lysate, Lane 2: A549 Whole Cell Lysate, Lane 3: A431 Whole Cell Lysate. 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-EGFR antigen affinity purified polyclonal antibody (Catalog # PB9016) 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 1:10000 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 EGFR at approximately 200KD. The expected band size for EGFR is at 134KD.



IF analysis of EGFR using anti-EGFR antibody (PB9016). EGFR was detected in immunocytochemical section of A431 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 2ug/mL rabbit anti-EGFR Antibody (PB9016) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) was used as secondary antibody at 1:100 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.



Western blot analysis of EGFR using anti-EGFR antibody (PB9016). 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. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% milk in PBS/0.05% Tween-20 (5% milk/PBS/Tw) for 1.5 hour at RT. The membrane was incubated with rabbit anti-EGFR antibody (PB9016) at 1 ug/mL in 5% milk/PBS/0.05% Tween 20 overnight at 4°C , then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit antibody conjugated with HRP at 1:5,000 in 5% milk/PBS/Tw at 4°C for 12 hours. The signal is developed using an SuperSignal West Pico Chemiluminescent Substrate (Thermo Scientific). A specific band was detected for EGFR at approximately 134 kDa. The expected band size for EGFR is at 134 kDa.

1. PubMed ID: -, Study of the correlation between the expression of nuclear factor kappa B and proliferation regulatory proteins and chronic superficial gastritis, Hu Hui, Ma Zhijian, Ren Shouzhong, Xie Yiqiang, Vojnosanitetski pregled 2020 OnLine-First, 00, SP - 135 EP-135
2. PubMed ID: 27609096, Anti-tumor activity of erlotinib in the BxPC-3 pancreatic cancer cell line
3. PubMed ID: 21349701, Yue P, Gao Zh, Xue X, Cui Sx, Zhao Cr, Yuan Y, Yin Z, Inagaki Y, Kokudo N, Tang W, Qu Xj. Eur J Cancer. 2011 May;47(7):1115-24. Doi: 10.1016/J.Ejca.2011.01.017. Epub 2011 Feb 23. Des-??-Carboxyl Prothrombin Induces Matrix Metalloproteinase Activit...

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### Anti-EGFR Antibody

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