BOSTER BIOLOGICAL TECHNOLOGY
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888-466-3604 | support@bosterbio.com | www.bosterbio.com

Anti-EGFR Antibody Picoband®

Catalog Number: A00023

About EGFR

The breakpoint cluster region protein (BCR) is a protein that in humans is encoded by the BCR gene. A reciprocal translocation between chromosomes 22 and 9 produces the Philadelphia chromosome, which is often found in patients with chronic myelogenous leukemia. The chromosome 22 breakpoint for this translocation is located within the BCR gene. The translocation produces a fusion protein which is encoded by sequence from both BCR and ABL, the gene at the chromosome 9 breakpoint. Although the BCR-ABL fusion protein has been extensively studied, the function of the normal BCR gene product is not clear. The protein has serine/threonine kinase activity and is a GTPase-activating protein for p21rac. Two transcript variants encoding different isoforms have been found for this gene.

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Overview

Product Name	Anti-EGFR Antibody Picoband®
Reactive Species	Human
Description	Boster Bio Anti-EGFR Antibody Picoband® catalog # A00023. Tested in 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	Flow Cytometry, IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains antibody formulated with stabilizing components, 0.9 mg NaCl, 0.2 mg Na2HPO4, and 0.05 mg NaN3. *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

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antibody and ELISA experts

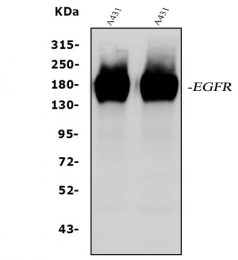
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Technical Details

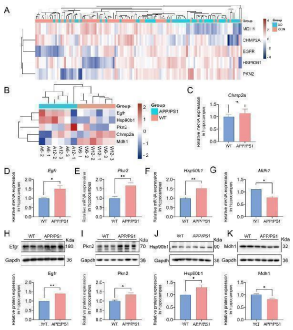
Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human EGFR, different from the related mouse sequence by two amino acids.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit 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, 0.1-0.5ug/ml, Human Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human Flow Cytometry (Fixed), 1-3ug/1x10^6 cells, Human Note: For flow cytometry (FCM), suitable for fixed cells only. Not suitable for FACS or surface flow cytometry using live cells.

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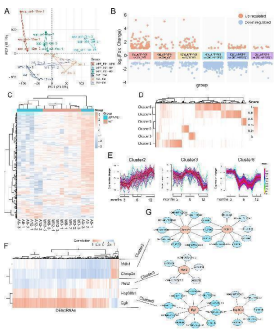
Anti-EGFR Antibody Picoband® (A00023) Images



Western blot analysis of EGFR using anti-EGFR antibody (A00023). 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 A431 whole cell lysates, Lane 2: human A431 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-EGFR antigen affinity purified polyclonal antibody (Catalog # A00023) 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 EGFR at approximately 175 kDa. The expected band size for EGFR is at 134 kDa.



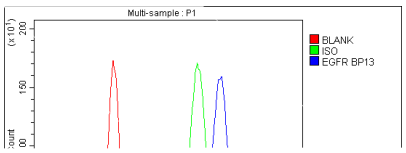
Validation of the pyroptosis-AD hub genes at the level of RNA and protein in AD mice. (A) A hierarchical clustering heatmap based on the normalized expression of the five pyroptosis-AD genes in the combined dataset. (B) A clustering heatmap was constructed based on the normalized expression of the five pyroptosis-AD genes in the 6- and 12-month-old APP/PS1 and control mice. The 6- and 12-month-old APP/PS1 or WT mice were abbreviated as A6 and A12 or W6 and W12, respectively. (C–G) qPCR validation of mRNA expression of the pyroptosis-AD hub genes (Chmp2a, Egfr, Pkn2, Hsp90b1, and Mdh1, respectively) between the 12 months APP/PS1 and wild-type (WT) mice. Data are mean ± SEM (n = 6 for WT, and n = 5 for APP/PS1 mice group, * $p < 0.05$, ** $p < 0.01$, unpaired two-tailed t -test). (H–K) The cell lysates from the hippocampus of APP/PS1 and WT mice were prepared and blotted with anti-Egfr, Pkn2, Hsp90b1, and Mdh1, respectively (up). The relative protein expressions of Egfr, Pkn2, Hsp90b1, and Mdh1 were calculated using Gapdh as an internal reference (below). Data are mean ± SEM (n = 6 per group, * $p < 0.05$, ** $p < 0.01$, unpaired two-tailed t -test).Index in PubMed under a CC BY license. PMID: 40438507



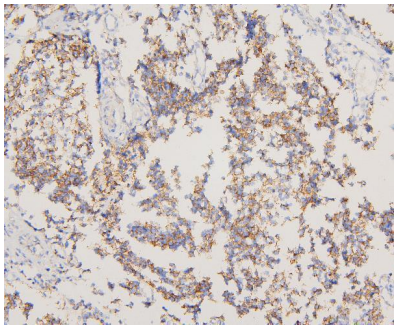
Construction of lncRNA regulatory network of the pyroptosis-AD hub genes. (A) PCA of lncRNAs expression profiles of the APP/PS1 and WT mice at the age of 3, 6, and 12 months. (B) Visualization of the clustered volcano diagram for the DElncRs from six different comparisons, including APP/PS1 mice vs. WT mice at the age of 3, 6, and 12 months and comparison of APP/PS1 mice between different ages. (C) A hierarchical clustering heatmap based on the normalized expression in all samples of DElncRs. The 3-, 6-, and 12-month-old APP/PS1 or WT mice were abbreviated as A3, A6,

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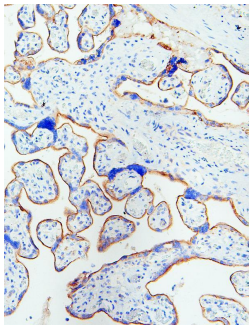
and A12 or W3, W6, and W12, respectively. (D) The clustered heatmap was produced based on the membership scores of the six clusters obtained by time series analysis. All the DElncRs and five pyroptosis-AD hub genes were clustered into six groups. (E) Line charts showed the relative expression trend in each cluster. The five pyroptosis-AD hub genes were divided into cluster 2 (Champ2 and Mdh1), cluster 3 (Pkn2), and cluster (Egfr and Hsp90b1). The horizontal axis represents a total of nine samples in the age 3-, 6-, and 12-month groups in turn. (F) The heatmaps of correlation analysis of the five pyroptosis-AD hub genes and DElncRs. (G) Regulatory networks constructed by the five pyroptosis-AD hub genes and their top10 (show all if the numbers of lncRNA less than 10) correlated lncRNAs (the ID of lncRNAs could be queried in the NONCODE, NCBI, or Ensemble databases).Index in PubMed under a CC BY license. PMID: 40438507



Flow Cytometry analysis of A431 cells using anti-EGFR antibody (A00023). Overlay histogram showing A431 cells stained with A00023 (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-EGFR Antibody (A00023,1ug/1x106 cells) for 30 min at 20°C. DyLight488 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 without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.



IHC analysis of EGFR using anti-EGFR antibody (A00023). EGFR was detected in paraffin-embedded section of human glioma tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-EGFR Antibody (A00023) 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 Strepavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.



IHC analysis of EGFR using anti-EGFR antibody (A00023). EGFR was detected in paraffin-embedded section of human placenta tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-EGFR Antibody (A00023) 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 Strepavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

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4 Publications Citing This Product

1. PubMed ID: 2744159, Anti-tumor activity of erlotinib in the BxPC-3 pancreatic cancer cell line

2. PubMed ID: 22507221, YC-1 exerts inhibitory effects on MDA-MB-468 breast cancer cells by targeting EGFR in vitro and in vivo under normoxic condition

3. PubMed ID: 27609096, Anti-tumor activity of erlotinib in the BxPC-3 pancreatic cancer cell line

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Anti-EGFR Antibody

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