

Anti-c-Kit Antibody Picoband™

Catalog Number: PB9258

About KIT

SCFR (Mast/stem cell growth factor receptor), also known as KIT ONCOGENE or CD117, is a protein that in humans is encoded by the KIT gene. KIT was first described as the cellular homolog of the feline sarcoma viral oncogene v-kit. The KIT gene is mapped on 4q12. Kit was expressed on the surface of germ cells up to the pachytene stage. Signaling from the KIT receptor tyrosine kinase is essential for primordial germ cell growth both in vivo and in vitro. Determination of the KIT effectors acting in primordial germ cells has been hampered by the lack of effective methods to manipulate easily gene expression in these cells.

Overview

Product Name	Anti-c-Kit Antibody Picoband™
Reactive Species	Human
Description	Boster Bio Anti-c-Kit Antibody Picoband™ catalog # PB9258. Tested in Flow Cytometry, IHC, ICC, WB applications. This antibody reacts with Human.
Application	Flow Cytometry, IHC, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
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	P10721

Technical Details

Immunogen	E.coli-derived human c-Kit recombinant protein (Position: Q26-S285). Human c-Kit shares 66% amino acid (aa) sequence identity with mouse c-Kit.
Predicted Reactive Species	Hamster
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), IHC(F) and ICC.
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: Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, By Heat Immunohistochemistry (Frozen Section), 0.5-1ug/ml Immunocytochemistry, 0.5-1ug/ml Western blot, 0.1-0.5ug/ml Flow Cytometry, 1-3ug/1x10⁶ cells

Anti-c-Kit Antibody Picoband™ (PB9258) Images



Figure 1. Western blot analysis of C-Kit using anti-C-Kit antibody (PB9258).

Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours.

Lane 1: Recombinant Human C-Kit Protein 0.5ng

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-C-Kit antigen affinity purified polyclonal antibody (Catalog # PB9258) 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 C-Kit at approximately 49KD. The expected band size for C-Kit is at 49KD.



Figure 2. Western blot analysis of C-Kit using anti-C-Kit antibody (PB9258).

Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours.

Lane 1: HEPG2 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-C-Kit antigen affinity purified polyclonal antibody (Catalog # PB9258) 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 C-Kit at approximately 109KD. The expected band size for C-Kit is at 109KD.

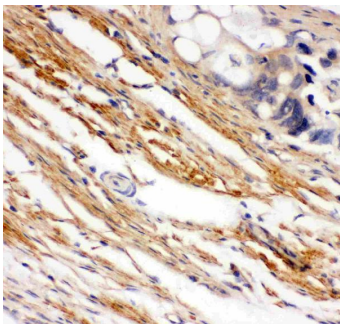
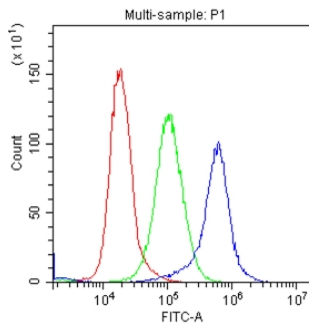


Figure 3. IHC analysis of C-Kit using anti-C-Kit antibody (PB9258).

C-Kit was detected in paraffin-embedded section of human intestinal cancer tissue. 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-C-Kit Antibody (PB9258) 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. Flow Cytometry analysis of K562 cells using anti-C-



Kit antibody (PB9258).

Overlay histogram showing K562 cells stained with PB9258 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-C-Kit Antibody (PB9258, 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 (Red line) was also used as a control.

18 Publications Citing This Product

1. PubMed ID: 10.14309/ctg.0000000000000388, The Number of Interstitial Cells of Cajal Differs Among Different Subtypes of Achalasia and is Related to Patients Prognosis
2. PubMed ID: 10.1159/000204750, Isolation, Culture and Characterization of Cardiac Progenitor Cells Derived from Human Embryonic Heart Tubes
3. PubMed ID: 25311085, Li Jt, Wang Lf, Zhao Yl, Yang T, Li W, Zhao J, Yu F, Wang L, Meng Yl, Liu Nn, Zhu Xs, Gao Cf, Jia Lt, Yang Ag. Breast Cancer Res. 2014 Oct 14;16(5):454. Doi: 10.1186/S13058-014-0454-2. Nuclear Factor Of Activated T Cells 5 Maintained By Hotair Sup...

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