

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. 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, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains antibody formulated with stabilizing components, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ , and 0.05 mg NaN ₃ . *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	P10721

Technical Details

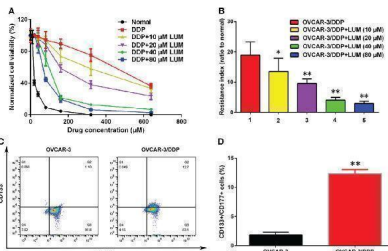
Immunogen	E.coli-derived human c-Kit recombinant protein (Position: Q26-S285). Human c-Kit shares 66% amino acid (aa) sequence identity with mouse c-Kit.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit 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	Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml Immunohistochemistry (Frozen Section), 0.5-1ug/ml Immunocytochemistry, 0.5-1ug/ml Western blot, 0.1-0.5ug/ml Flow Cytometry (Fixed), 1-3ug/1x10 ⁶ cells

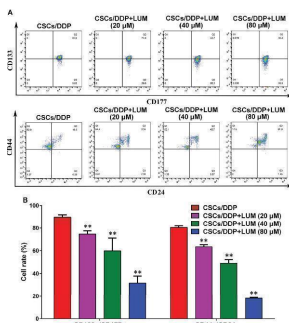
Anti-c-Kit Antibody Picoband® (PB9258) Images



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.



Lumiflavin treatment reduces the development of DDP resistance of ovarian cancer OVCAR-3 cells line that is associated with cancer stem cells (CSCs). DDP resistance of ovarian cancer OVCAR-3 cell lines were induced by gradient concentration increment method (), and treated with 10, 20, 40, and 80 um lumiflavin intervention simultaneously. The cell inhibition rate and resistance index of OVCAR-3 cells to DDP were detected by CCK-8 assay kit. The proportion of CSCs (CD133+/CD117+ double positive cells) in OVCAR-3 cells was detected by flow cytometry. (A) Inhibitory curves of lumiflavin and DDP on OVCAR-3 and OVCAR-3/DDP cells. (B) Resistance index of OVCAR-3/DDP cells compared with OVCAR-3 cells. (C) Flow detection results of CD133+/CD117+ cells ratio of OVCAR-3 and OVCAR-3/DDP cells. (D) Statistical analysis graph of (C) . Mean \pm SD (n = 3). ** P < 0.01 difference between groups; * P < 0.05 difference between groups. DDP, cisplatin; OVCAR-3/DDP, DDP resistant OVCAR-3 cell lines; LUM, lumiflavin. Index in PubMed under a CC BY license. PMID: 35669418

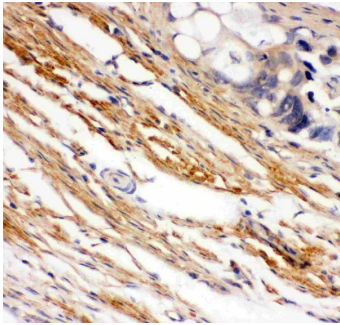


Effects of lumiflavin treatment on phenotypic differentiation of DDP-resistant cancer stem cells (CSCs/DDP). CSCs, CSCs/DDP were treated with 80 uM DDP, and CSCs/DDP were treated with 80 uM DDP and 20, 40, 80 uM lumiflavin for 72 h. Co-expression of CD133+/CD117+, CD44+/CD177, and CD44+/CD24- of CSCs/DDP were detected through flow cytometry. (A) Flow detection results of CD133+/CD117+, CD44+/CD177, and CD44+/CD24- cells of CSCs/DDP. (B) Statistical analysis graph of (A) . ** P < 0.01 between groups. Mean \pm SD (n = 3). CSCs/DDP, CSCs from DDP resistant OVCAR-3 cell lines; LUM, lumiflavin. Index in PubMed under a CC BY license. PMID: 35669418

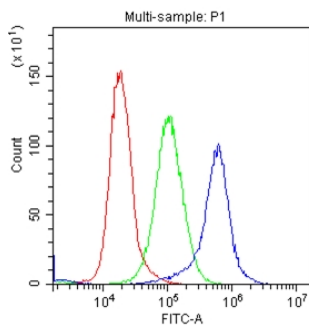
Western blot analysis of C-Kit using anti-C-Kit antibody



(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.



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.



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 fixed with 4% paraformaldehyde and 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 without incubation with primary antibody and secondary antibody (Red line) was used as a blank 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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Anti-c-Kit Antibody

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