BOSTER
antibody and ELISA experts

BOSTER BIOLOGICAL TECHNOLOGY
3942 B Valley Ave, Pleasanton, CA 94566
888-466-3604 | support@bosterbio.com | www.bosterbio.com

Anti-CXCR4 Antibody Picoband®

Catalog Number: PA1237

About CXCR4

CXCR4 (Chemokine,CXC Motif, Receptor 4), also known as FUSIN or NPY3R, is a protein that in humans is encoded by the CXCR4 gene. It is the receptor for the CXC chemokine SDF1 that has essential functions on embryo organogenesis, immunological functions and T lymphocyte trafficking. CXCR4 is the only SDF1 receptor identified so far. This suggests that CXCR4 expression is critical for the biological effects of SDF1. CXCR4 is also a seven-transmembrane-spanning, G-protein-coupled receptor for the CXC chemokine PBSF/SDF-1. It functions as a co-receptor for T-cell-line tropic human immunodeficiency virus HIV-1. It was concluded that PBSF/SDF-1 and CXCR4 define a new signalling system for organ vascularization.

Overview

Product Name	Anti-CXCR4 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-CXCR4 Antibody catalog # PA1237. Tested in IHC, WB applications. This antibody reacts with Human, Mouse, 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	IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains antibody formulated with stabilizing components, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg 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	P61073

Technical Details

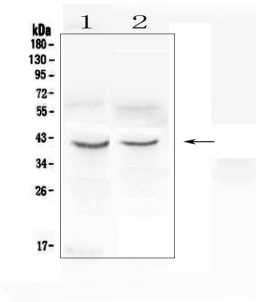
Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human CXCR4, different from the related rat and mouse sequences by two amino acids.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).

BOSTER BIOLOGICAL TECHNOLOGY
3942 B Valley Ave, Pleasanton, CA 94566
888-466-3604 | support@bosterbio.com | www.bosterbio.com

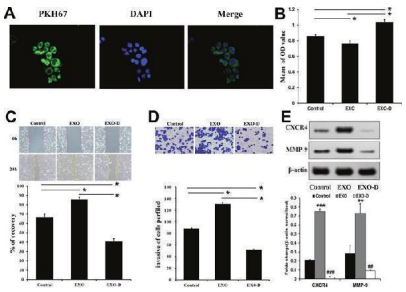
Cross Reactivity	No cross-reactivity with other proteins
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human Western blot, 0.1-0.5ug/ml, Human, Rat, Mouse

BOSTER BIOLOGICAL TECHNOLOGY
3942 B Valley Ave, Pleasanton, CA 94566
888-466-3604 | support@bosterbio.com | www.bosterbio.com

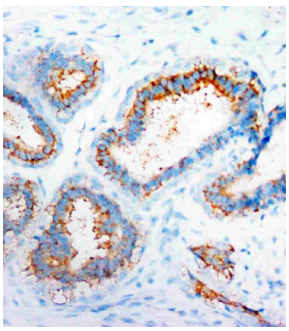
Anti-CXCR4 Antibody Picoband® (PA1237) Images



Western blot analysis of CXCR4 using anti-CXCR4 antibody (PA1237). 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: human THP-1 whole cell lysates, Lane 2: human Hela whole cell lysates. 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-CXCR4 antigen affinity purified polyclonal antibody (Catalog # PA1237) 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 CXCR4 at approximately 40-43KD. The expected band size for CXCR4 is at 40KD.



Panc02-H7-derived exosomes promote metastatis-related characteristics in vitro . Panc02 cells tookup PKH67-labeled Panc02-H7EXOs. Numerous green fluorescently-labeled exosomes were observed inside cells after 5 h (400× magnification). (A) The MTT cell adhesion assay indicated that Panc02-H7 EXOs decrease Panc02 cell adhesion. (B) Wound-healing assays indicated that Panc02-H7 EXOs enhanced Panc02 cell migration (200×magnification). (C) Transwell chamber invasion assays showed that Panc02-H7 EXOs increased Panc02 cell invasion (200×magnification). (D) Western blotting indicated that Panc02-H7 EXOs increased Panc02 cell migration and invasion via CXCR4 and MMP-9 signaling. (E) n=3/group.*P



IHC analysis of CXCR4 using anti-CXCR4 antibody (PA1237). CXCR4 was detected in paraffin-embedded section of human mammary cancer 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-CXCR4 Antibody (PA1237) 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.

28 Publications Citing This Product

1. PubMed ID: 10.3748/wjg.v17.i19.2389, CXCR4/SDF-1 axis is involved in lymph node metastasis of gastric carcinoma

2. PubMed ID: 10.3760/cma.j.issn.0366-6999.20123471, Effect of CO2 pneumoperitoneum on the expression of the chemokine receptors CXCR4 and CCR7 in colorectal carcinoma cellsin vitro

BOSTER BIOLOGICAL TECHNOLOGY
3942 B Valley Ave, Pleasanton, CA 94566
888-466-3604 | support@bosterbio.com | www.bosterbio.com

3. PubMed ID: 10.1186/1756-9966-27-62, Chemokine CXCL12 and its receptor CXCR4 expression are associated with perineural invasion of prostate cancer

Visit bosterbio.com/anti-cxcr4-antibody-pa1237-boster.html to see all 28 publications.

Anti-CXCR4 Antibody

For Research Use Only. Not for use in diagnostic procedures.