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: A00031-4

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.

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Overview

Product Name	Anti-CXCR4 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-CXCR4 Antibody Picoband® catalog # A00031-4. Tested in ELISA, Flow Cytometry, 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	ELISA, Flow Cytometry, WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4.
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

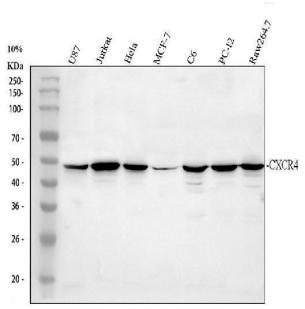
Immunogen	E.coli-derived human CXCR4 recombinant protein (Position: D20-S352).

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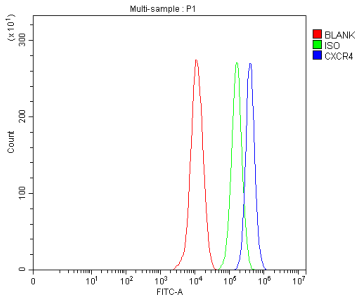
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.25-0.5ug/ml, Human, Mouse, Rat Flow Cytometry (Fixed), 1-3ug/1x10^6 cells, Human ELISA, 0.1-0.5ug/ml, - 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-CXCR4 Antibody Picoband® (A00031-4) Images



Western blot analysis of CXCR4 using anti-CXCR4 antibody (A00031-4). Electrophoresis was performed on a 10% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human U87 whole cell lysates, Lane 2: human Jurkat whole cell lysates, Lane 3: human Hela whole cell lysates, Lane 4: human MCF-7 whole cell lysates, Lane 5: rat C6 whole cell lysates, Lane 6: rat PC-12 whole cell lysates, Lane 7: mouse RAW264.7 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-CXCR4 antigen affinity purified polyclonal antibody (A00031-4) 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 (Catalog # BA1054) at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an ECL Plus Western Blotting Substrate (Catalog # AR1196-200) with Tanon 5200 system. A specific band was detected for CXCR4 at approximately 40-50 kDa. The expected band size for CXCR4 is at 40 kDa.



Flow Cytometry analysis of THP-1 cells using anti-CXCR4 antibody (A00031-4). Overlay histogram showing THP-1 cells stained with A00031-4 (Blue line). The cells were fixed with 4% paraformaldehyde and blocked with 10% normal goat serum. And then incubated with rabbit anti-CXCR4 Antibody (A00031-4, 1 ug/1x106 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x106 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x106) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

3 Publications Citing This Product

1. PubMed ID: 10.4049/jimmunol.1402097, Macrophage Migration Inhibitory Factor–CXCR4 Is the Dominant Chemotactic Axis in Human Mesenchymal Stem Cell Recruitment to Tumors

2. PubMed ID: 10.1016/j.cellbi.2009.01.012, Oxidative preconditioning promotes bone marrow mesenchymal stem cells migration and prevents apoptosis

3. PubMed ID: 10.1139/bcb-2017-0074, The CXCL12–CXCR4 axis promotes migration, invasiveness, and EMT in human papillary thyroid carcinoma B-CPAP cells via NF-kappaB signaling

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Anti-CXCR4 Antibody

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