

Anti-CXCR4 Antibody Picoband™

Catalog Number: A00031-2

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 Picoband™ catalog # A00031-2. Tested in ELISA, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	ELISA, WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 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	P61073

Technical Details

Immunogen	E.coli-derived human CXCR4 recombinant protein (Position: K68-R322).
Predicted Reactive Species	Chicken
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	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: Western blot, 0.1-0.5ug/ml Direct ELISA, 0.1-0.5ug/ml

Anti-CXCR4 Antibody Picoband™ (A00031-2) Images

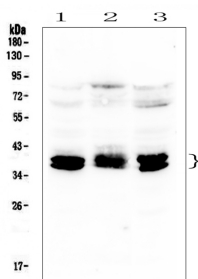


Figure 1. Western blot analysis of CXCR4 using anti-CXCR4 antibody (A00031-2).

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 HEK293 whole cell lysates,

Lane 2: human PC-3 whole cell lysates,

Lane 3: 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 # A00031-2) 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 36-40KD. The expected band size for CXCR4 is at 40KD.

3 Publications Citing This Product

1. PubMed ID: 32119183, Liu Y,Feng Q,Miao J,Wu Q,Zhou S,Shen W,Feng Y,Hou FF,Liu Y,Zhou L.C-X-C motif chemokine receptor 4 aggravates renal fibrosis through activating JAK/STAT/GSK3beta/beta-catenin pathway.J Cell Mol Med.2020 Apr;24(7):3837-3855.doi:10.1111/jcmm.14973.Epub 2020 Mar 2.PMID:32119183;PMCID:PMC7171406.

2. PubMed ID: 25471741, Blockade of CXCL12/CXCR4 signaling inhibits intrahepatic cholangiocarcinoma progression and metastasis via inactivation of canonical Wnt pathway

3. PubMed ID: 25712213, Macrophage migration inhibitory factor%u2013CXCR4 is the dominant chemotactic axis in human mesenchymal stem cell recruitment to tumors

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