

Anti-CXCR4 Antibody Picoband®

Catalog Number: A00031

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

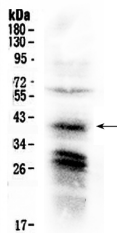
Product Name	Anti-CXCR4 Antibody Picoband®
Reactive Species	Human
Description	Boster Bio Anti-CXCR4 Antibody Picoband® catalog # A00031. Tested in WB applications. This antibody reacts with Human. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	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	P61073

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human CXCR4, different from the related mouse sequence by five amino acids, and from the related rat sequence by three amino acids.
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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, 0.1-0.5ug/ml, Human

Anti-CXCR4 Antibody Picoband® (A00031) Images



Western blot analysis of CXCR4 using anti-CXCR4 antibody (A00031). 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: 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) 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 40KD. The expected band size for CXCR4 is at 40KD.

5 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: 18983683, Chemokine CXCL12 and its receptor CXCR4 expression are associated with perineural invasion of prostate cancer

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Anti-CXCR4 Antibody

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