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

Anti-GPCR RDC1/CXCR-7/ACKR3 Antibody Picoband®

Catalog Number: A02656-2

About ACKR3

Atypical chemokine receptor 3 also known as C-X-C chemokine receptor type 7 (CXCR-7) and G-protein coupled receptor 159 (GPR159) is a protein that in humans is encoded by the ACKR3 gene. This gene encodes a member of the G-protein coupled receptor family. Although this protein was earlier thought to be a receptor for vasoactive intestinal peptide (VIP), it is now considered to be an orphan receptor, in that its endogenous ligand has not been identified. The protein is also a coreceptor for human immunodeficiency viruses (HIV). Translocations involving this gene and HMGA2 on chromosome 12 have been observed in lipomas.

Submit a product review to Biocompare.com





Submit a review of this product to Biocompare.com to receive a $20 Amazon.com giftcard! Your reviews help your fellow scientists make the right decisions. Thank you for your contribution.

Overview

Product Name	Anti-GPCR RDC1/CXCR-7/ACKR3 Antibody Picoband®
Reactive Species	Human
Description	Boster Bio Anti-GPCR RDC1/CXCR-7/ACKR3 Antibody Picoband® catalog # A02656-2. Tested in Flow Cytometry, IHC, 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, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
Storage Instructions	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 freezing and thawing.
Host	Rabbit
Uniprot ID	P25106

Technical Details

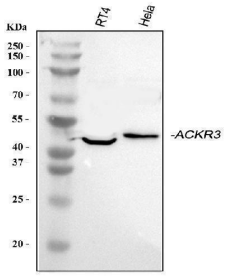
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human GPCR RDC1/CXCR-7/ACKR3, identical to the related mouse and rat sequences.

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

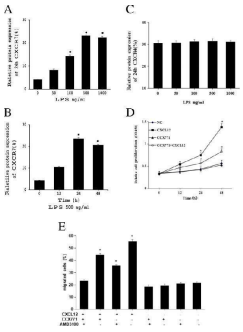
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 µg/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.25-0.5 µg/ml, Human Immunohistochemistry(Paraffin-embedded Section), 2-5 µg/ml, Human Flow Cytometry (Fixed), 1-3 ug/1x10^6 cells, Human Note: For flow cytometry (FCM), suitable for fixed cells only. Not suitable for FACS or surface flow cytometry using live cells.

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

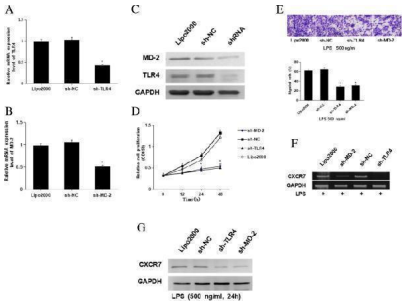
Anti-GPCR RDC1/CXCR-7/ACKR3 Antibody Picoband® (A02656-2) Images



Western blot analysis of GPCR RDC1/CXCR-7/ACKR3 using anti-GPCR RDC1/CXCR-7/ACKR3 antibody (A02656-2). 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 30 ug of sample under reducing conditions. Lane 1: human RT4 whole cell lysates, Lane 2: human Hela 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-GPCR RDC1/CXCR-7/ACKR3 antigen affinity purified polyclonal antibody (Catalog # A02656-2) 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 1:5000 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 GPCR RDC1/CXCR-7/ACKR3 at approximately 41 kDa. The expected band size for GPCR RDC1/CXCR-7/ACKR3 is at 41 kDa.

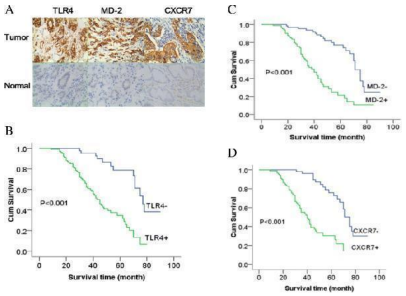


LPS induced changes in CXCR7 expression in SGC7901 cells. A: CXCR7 protein expression was assessed by western blotting after SGC7901 cells were stimulated for different periods of time with 500 ng/mL LPS; B: SGC7901 cells were cultured with various concentrations of LPS for 24 h, and CXCR7 protein expression was analyzed via western blotting; C: After exposure of SGC7901 cells to LPS (500 ng/ml), CXCR4 protein expression was assessed by western blotting; D and E: After pretreatment with CCX771, SGC7901 cell proliferation and migration were largely inhibited in response to CXCL12 (100 ng/ml) after 48 h of incubation with LPS. *, P < 0.05, vs. the NC group. The data are presented as the mean ± SD Index in PubMed under a CC BY license. PMID: 30636642

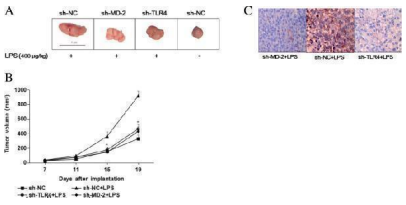


The effect of TLR4 and MD-2 knockdown on LPS-induced CXCR7 expression. a - c : Gastric cancer cells were transfected with TLR4-specific or MD-2-specific shRNAs, and endogenous TLR4 and MD-2 expression levels were analyzed via qRT-PCR (a and b) and western blotting (c); d and e : Gastric cancer cells were transfected with TLR4-specific or MD-2-specific shRNAs and treated with 500 ng/mL LPS. A CCK-8 assay was then used to detect cell proliferation (d), and a transwell assay was used to assess cell migration (e); f and g : As described in D and E, CXCR7 expression was analyzed via RT-PCR (F) and western blotting (g) *, P < 0.05, vs. the Lipo2000 group and sh-NC group. The data are presented as the mean ± SD Index in PubMed under a CC BY license. PMID: 30636642

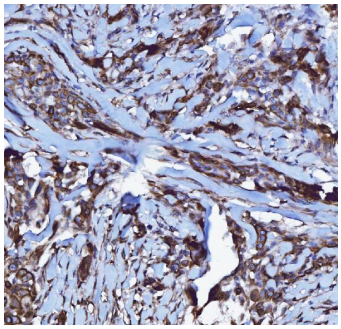
BOSTER BIOLOGICAL TECHNOLOGY
3942 B Valley Ave, Pleasanton, CA 94566
888-466-3604 | support@bosterbio.com | www.bosterbio.com



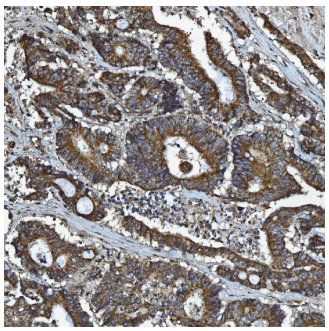
TLR4, MD-2 and CXCR7 expression in gastric cancer indicates poor prognosis. a : Representative immunohistochemical staining of TLR4, MD-2 and CXCR7 in gastric cancer tissues and paracancerous tissues (original magnification 400×); survival curve for patients with gastric cancer expressing TLR4 (b), MD-2 (c) and CXCR7 (d) Index in PubMed under a CC BY license. PMID: 30636642



LPS enhances the tumorigenicity of SGC7901 cells via the TLR4/MD-2 pathway. a and b : SGC7901 cells (2 × 10 6 cells/mice) treated with different shRNAs (sh-NC, sh-TLR4 and sh-MD-2) were injected subcutaneously into the flanks of nude mice, and the mice were intratumorally injected with LPS (400 ug/kg) every other day. The tumor volume was observed (a) and measured (b); *, $P < 0.05$. The data are presented as the mean ± SD; C: CXCR7 expression in tumors was analyzed via immunohistochemistry (original magnification 400×) Index in PubMed under a CC BY license. PMID: 30636642



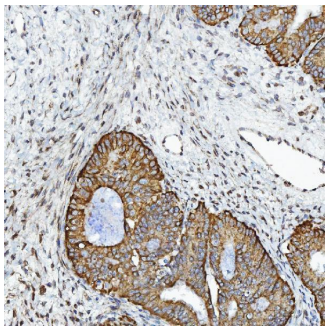
IHC analysis of GPCR RDC1/CXCR-7/ACKR3 using anti-GPCR RDC1/CXCR-7/ACKR3 antibody (A02656-2). GPCR RDC1/CXCR-7/ACKR3 was detected in a paraffin-embedded section of human breast cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-GPCR RDC1/CXCR-7/ACKR3 Antibody (A02656-2) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



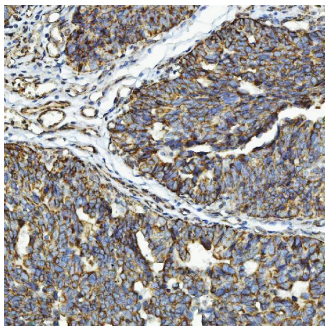
IHC analysis of GPCR RDC1/CXCR-7/ACKR3 using anti-GPCR RDC1/CXCR-7/ACKR3 antibody (A02656-2). GPCR RDC1/CXCR-7/ACKR3 was detected in a paraffin-embedded section of human colon adenocarcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-GPCR RDC1/CXCR-7/ACKR3 Antibody (A02656-2) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

IHC analysis of GPCR RDC1/CXCR-7/ACKR3 using anti-GPCR RDC1/CXCR-7/ACKR3 antibody (A02656-2). GPCR RDC1/CXCR-7/ACKR3 was detected in a paraffin-embedded section of human endometrial cancer tissue. Heat mediated

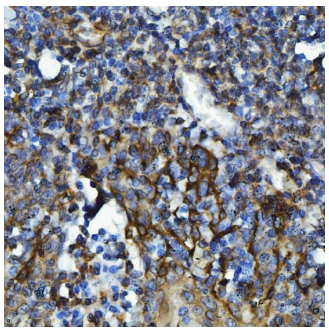
BOSTER BIOLOGICAL TECHNOLOGY
3942 B Valley Ave, Pleasanton, CA 94566
888-466-3604 | support@bosterbio.com | www.bosterbio.com



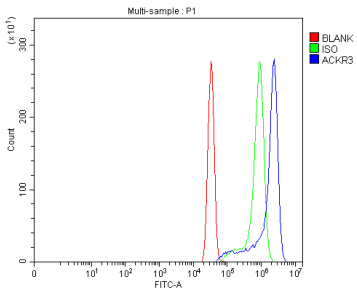
antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-GPCR RDC1/CXCR-7/ACKR3 Antibody (A02656-2) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



IHC analysis of GPCR RDC1/CXCR-7/ACKR3 using anti-GPCR RDC1/CXCR-7/ACKR3 antibody (A02656-2). GPCR RDC1/CXCR-7/ACKR3 was detected in a paraffin-embedded section of human urothelial carcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-GPCR RDC1/CXCR-7/ACKR3 Antibody (A02656-2) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



IHC analysis of GPCR RDC1/CXCR-7/ACKR3 using anti-GPCR RDC1/CXCR-7/ACKR3 antibody (A02656-2). GPCR RDC1/CXCR-7/ACKR3 was detected in a paraffin-embedded section of human tonsil tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-GPCR RDC1/CXCR-7/ACKR3 Antibody (A02656-2) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



Flow Cytometry analysis of SiHa cells using anti-GPCR RDC1/CXCR-7/ACKR3 antibody (A02656-2). Overlay histogram showing SiHa cells stained with A02656-2 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-GPCR RDC1/CXCR-7/ACKR3 Antibody (A02656-2, 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.

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

Anti-GPCR RDC1/CXCR-7/ACKR3 Antibody

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