abcam

Product datasheet

Anti-CCR4 antibody ab1669

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Overview

Product name	Anti-CCR4 antibody
Description	Goat polyclonal to CCR4
Host species	Goat
Specificity	Peptide sequence is < 50 % identical to other human chemokine receptors in this region.
Tested applications	**Suitable for:** Flow Cyt, ICC/IF, ELISA, ICC, IHC-P, WB, IHC-Fr
Species reactivity	**Reacts with:** Mouse, Human, Cynomolgus monkey
Immunogen	Synthetic peptide: SNYYLYESIPKPCTKEGIKAFGE , corresponding to amino acids 17-39 of Human CCR4 (extracellular domain). Run BLAST with Run BLAST with
Positive control	Human peripheral blood cells or paraffin sections of spleen. IHC-P:FFPE mouse lymph node normal. IHC-P:FFPE human tonsil normal. IHC-P:FFPE rat spleen normal.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
Storage buffer	Preservative: 0.1% Sodium azide Constituent: 0.1% BSA
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

Our Abpromise guarantee covers the use of **ab1669** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt	★★★☆☆	Use at an assay dependent concentration. ab37373 - Goat polyclonal IgG, is suitable for use as an isotype control with this antibody.
ICC/IF		Use at an assay dependent concentration. Fix cells with 4% PFA (see Ritter et al).
ELISA		1/100000.
ICC		1/300.
IHC-P		1/300.
WB		1/1000. Detects a band of approximately 55 kDa (predicted molecular weight: 42 kDa).
IHC-Fr		Use at an assay dependent concentration. Fix in acetone at -20°C for 5 minutes. See Heller et al.

Target

Function
High affinity receptor for the C-C type chemokines CCL17/TARC and CCL22/MDC. The activity of this receptor is mediated by G(i) proteins which activate a phosphatidylinositol-calcium second messenger system. Can function as a chemoattractant homing receptor on circulating memory lymphocytes and as a coreceptor for some primary HIV-2 isolates. In the CNS, could mediate hippocampal-neuron survival.

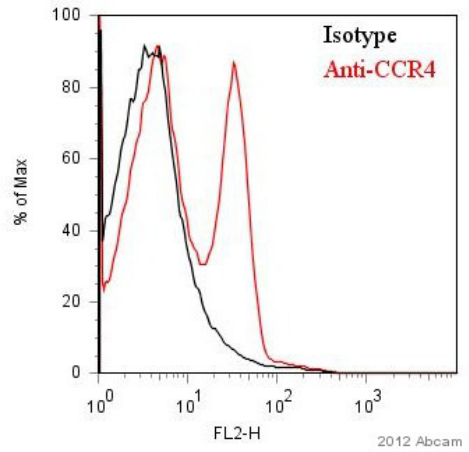
Tissue specificity
Predominantly expressed in the thymus, in peripheral blood leukocytes, including T-cells, mostly CD4+ cells, and basophils, and in platelets; at lower levels, in the spleen and in monocytes. Detected also in macrophages, IL-2-activated natural killer cells and skin-homing memory T-cells, mostly the ones expressing the cutaneous lymphocyte antigen (CLA). Expressed in brain microvascular and coronary artery endothelial cells.

Sequence similarities
Belongs to the G-protein coupled receptor 1 family.

Post-translational modifications
In natural killer cells, CCL22 binding induces phosphorylation on yet undefined Ser/Thr residues, most probably by beta-adrenergic receptor kinases 1 and 2.

Cellular localization
Cell membrane.

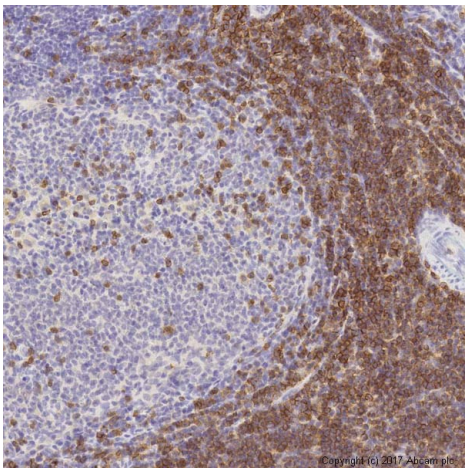
Images



Flow Cytometry - Anti-CCR4 antibody (ab1669)

This image is courtesy of an anonymous Abreview

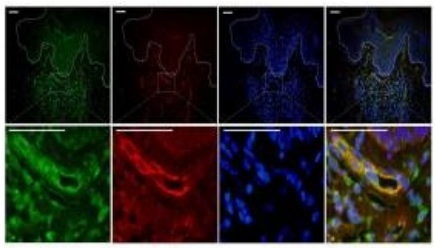
ab1669 staining CCR4 in Mouse whole blood by Flow Cytometry. Red blood cells were lysed in PBS + 1% BSA and 0.01% sodium azide and fixed in paraformaldehyde. The sample was incubated with the primary antibody (1/100 in PBS + 1% BSA and 0.01% sodium azide) for 1 hour at 4°C. A biotin-conjugated Donkey anti-goat IgG polyclonal (1/200) was used as the secondary antibody. **Gating Strategy:** Live Lymphocytes.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CCR4 antibody (ab1669)

IHC image of CD3 staining in a formalin fixed, paraffin embedded normal rat spleen tissue section, performed on a Leica Bond™ system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab1669 at 1/100 dilution for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

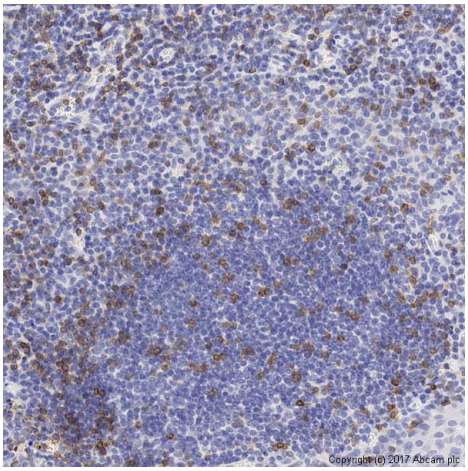
For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.



Immunohistochemistry (Frozen sections) - Anti-CCR4 antibody (ab1669)

Frozen sections of human skin tissue stained for CCR4 using ab1669 in immunohistochemical analysis (green). CD31(red) and nuclei (blue) are also shown. The right hand panel is a merged image.

Image courtesy of PMID 25915746 (PLoS One 2015 Apr 27;10(4)).

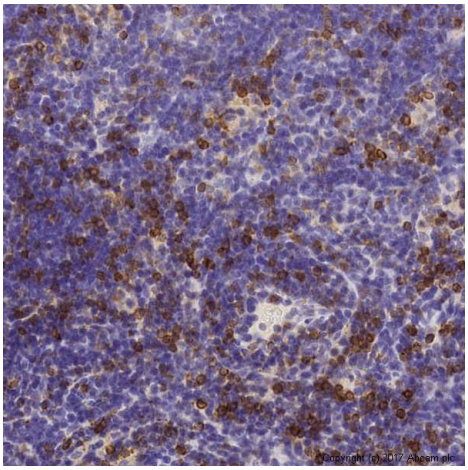


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CCR4 antibody (ab1669)

IHC image of CD3 staining in a formalin fixed, paraffin embedded normal human tonsil tissue section*, performed on a Leica Bond™ system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab1669 at 1/100 dilution for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.

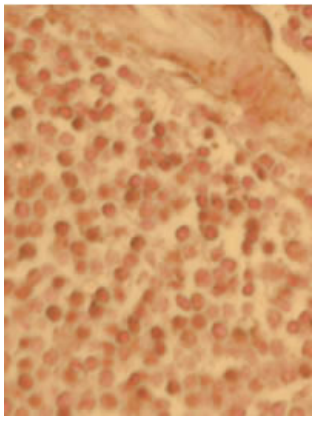
*Tissue obtained from the Human Research Tissue Bank, supported by the NIHR Cambridge Biomedical Research Centre



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CCR4 antibody (ab1669)

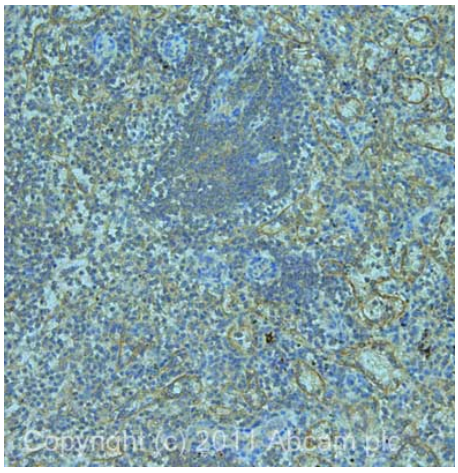
IHC image of CD3 staining in TISSUE formalin fixed paraffin embedded tissue section, performed on a Leica Bond™ system using the standard protocol B. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab1669 at 1/100 dilution for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.



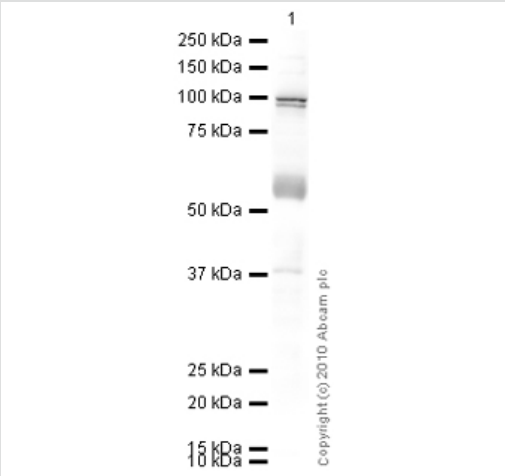
Immunohistochemistry - Anti-CCR4 antibody (ab1669)

Immunohistochemistry using ab1669 on a section of human spleen.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CCR4 antibody (ab1669)

IHC image of CCR4 staining in human spleen formalin fixed paraffin embedded tissue section, performed on a Leica Bond™ system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab1669, 5µg/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX. For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.



Western blot - Anti-CCR4 antibody (ab1669)

Anti-CCR4 antibody (ab1669) at 1 µg/ml + Human thymus tissue lysate - total protein (ab30146) at 10 µg

Secondary

Rabbit polyclonal to Goat IgG - H&L - Pre-Adsorbed (HRP) at 1/3000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 42 kDa
Observed band size: 55 kDa
why is the actual band size different from the predicted?
Additional bands at: 100 kDa, 37 kDa. We are unsure as to the identity of these extra bands.

Exposure time: 12 minutes

CCR4 contains a number of potential glycosylation sites (SwissProt) which may explain its migration at a higher molecular weight than predicted.

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