

BACKGROUND

Chemokines (chemotactic cytokines) belong to a family of chemoattractant molecules involved in the directed migration of immune cells. Over fifty human chemokines have been identified that can be categorised into four groups; CC, CXC, CX3C and C (XCL1 and XCL2); depending on the spacing of their first two cysteine residues. Chemokines exert their effects by binding to G-protein-coupled chemokine receptors on the surface of cells, predominantly leukocytes. Eighteen human chemokine receptors have been identified that are classified according to the class of chemokines that they bind. 1 The major function of chemokines is to regulate leukocyte trafficking in hematopoiesis and in innate and adaptive immunity. Other functions include angiogenic activity, apoptosis, T-cell differentiation and phagocyte activation. Inadvertent activation of chemokine receptors leads to autoimmunity by inappropriately targeting self antigens for destruction by cytotoxic T-cells and macrophages. 2

CCR7 is a member of the G protein-coupled receptor family. This receptor was identified as a gene induced by the Epstein-Barr virus (EBV), and is thought to be a mediator of EBV effects on B lymphocytes. This receptor is expressed in various lymphoid tissues and activates B and T lymphocytes. It has been shown to control the migration of memory T cells to inflamed tissues, as well as stimulate dendritic cell maturation. The chemokine (C-C motif) ligand 19 (CCL19/ECL) has been reported to be a specific ligand of this receptor. 3

References:

1. Zlotnik, A. & Yoshie, O.: Immunity 12:121-27, 2000
2. Locati, M.: Ann. Rev. Med. 50:425-40, 1999
3. Forster, R. et al: Cell 99:23-33, 1999

TECHNICAL INFORMATION

Source:

CCR7 Antibody is a rabbit antibody raised against a short peptide from N-terminal sequence of human CCR7.

Specificity and Sensitivity:

This antibody detects endogenous CCR7 proteins without cross-reactivity with other family members.

Storage Buffer: Rabbit IgG in phosphate buffered saline (without Mg²⁺ and Ca²⁺), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.

Storage:

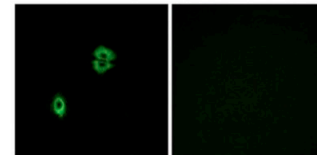
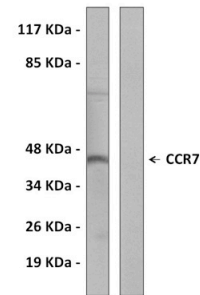
Store at -20°C for at least one year. Store at 4°C for frequent use. Avoid repeated freeze-thaw cycles.

APPLICATIONS

Application:	*Dilution:
WB	1:500-1:1000
IP	n/d
IHC	n/d
ICC	n/d
FACS	n/d
IF	1:100-1:500

**Optimal dilutions must be determined by end user.*

QUALITY CONTROL DATA



Top: Immunoblotting analysis of extracts from COS7 cells, using Anti-CCR7 antibody. The lane on the left was treated with the Anti-CCR7 antibody. The lane on the right (negative control) was treated with both Anti-CCR7 antibody and the synthesized immunogen peptide.

Bottom: Immunofluorescence of A549 cells using Anti-CCR7 antibody. Cells on the left were treated with the Anti-CCR7 antibody. Cells on the right (negative control) were treated with both Anti-CCR7 antibody and the synthesized immunogen peptide.

