iFluor™ 488 Conjugated Anti-CCR7 Antibody [SR36-04]

HA720157F

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	IF-Cell, IF-Tissue
Molecular Wt:	Predicted band size: 43 kDa
Clone number:	SR36-04

Description: C-C chemokine receptor type 7 is a protein that in humans is encoded by the CCR7 gene. Two ligands have been identified for this receptor: the chemokines (C-C motif) ligand 19 (CCL19/ELC) and (C-C motif) ligand 21 (CCL21). CCR7 has also recently been designated CD197 (cluster of differentiation 197). The protein encoded by this gene 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. CCR7 has been shown to stimulate dendritic cell maturation. CCR7 is also involved in homing of T cells to various secondary lymphoid organs such as lymph nodes and the spleen as well as trafficking of T cells within the spleen. Activation of dendritic cells in peripheral tissues induces CCR7 expression on the cell's surface, which recognize CCL19 and CCL21 produced in the Lymph node and increases dendritic cell expression of co-stimulation molecules (B7), and MHC class I or MHC class II.

Conjugate:	iFluor™ 488, Ex: 491nm; Em: 516nm.
Immunogen:	Synthetic peptide within Human CCR7 aa 13-62 / 378.
Positive control:	MCF-7, rat spleen tissue, human lymph nodes tissue.
Subcellular location:	Cell membrane.
Database links:	SwissProt: P32248 Human Entrez Gene: 287673 Rat Unigene: 229736 Rat
Recommended Dilutions:	
IF-Cell	1:100
IF-Tissue	1:50
Storage Buffer:	Preservative: 0.02% Sodium azide Constituents: 30% Glycerol, 1% BSA, 68.98% PBS
Storage Instruction:	Store at +4℃ after thawing. Aliquot store at -20℃. Avoid repeated freeze / thaw cycles.
Purity:	Protein A affinity purified.

Images

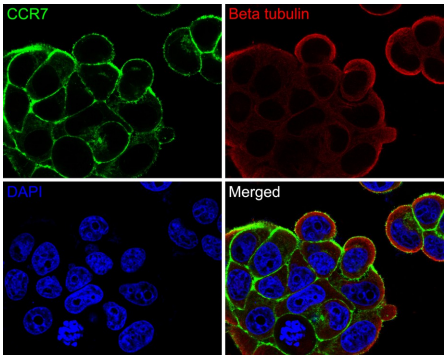

Fig1: Immunocytochemistry analysis of MCF-7 cells labeling CCR7 with Rabbit anti-CCR7 antibody (HA720157F) at 1/100 dilution.

Cells were fixed in 4% paraformaldehyde for 10 minutes, permeabilized with 0.1% Triton X-100 in PBS for 15 minutes, and then blocked with 2% normal goat serum for 1 hour at 37 ℃. Cells were then incubated with Rabbit anti-CCR7 antibody (HA720157F) at 1/100 dilution in 2% normal goat serum overnight at 4 ℃. Nuclear DNA was labelled in blue with DAPI.

Beta tubulin (M1305-2, red) was stained at 1/200 dilution overnight at +4℃. Goat Anti-Mouse IgG H&L (iFluor™ 594, HA1126) were used as the secondary antibody at 1/800 dilution.

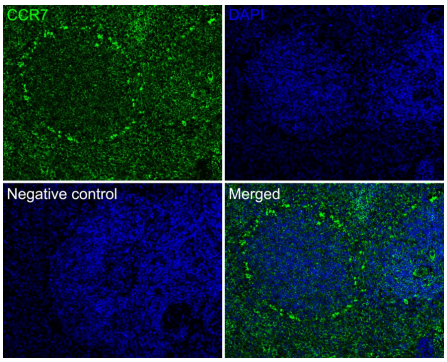

Fig2: Immunofluorescence analysis of paraffin-embedded rat spleen tissue labeling CCR7 (HA720157F).

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 10% negative goat serum for 1 hour at room temperature, washed with PBS. And then probed with the primary antibody CCR7 (HA720157F, iFluor™ 488) at 1/50 dilution overnight at 4 ℃, washed with PBS. DAPI was used as nuclear counterstain.

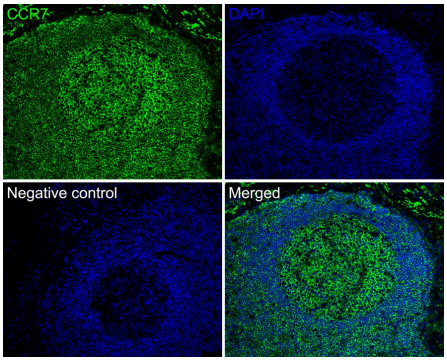

Fig3: Immunofluorescence analysis of paraffin-embedded human lymph nodes tissue labeling CCR7 (HA720157F).

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 10% negative goat serum for 1 hour at room temperature, washed with PBS. And then probed with the primary antibody CCR7 (HA720157F, iFluor™ 488) at 1/50 dilution overnight at 4 ℃, washed with PBS. DAPI was used as nuclear counterstain.

Background References

1. Pang MF et al. TGF-β1-induced EMT promotes targeted migration of breast cancer cells through the lymphatic system by the activation of CCR7/CCL21-mediated chemotaxis. Oncogene N/A:N/A (2015).
2. Guo J et al. Effect of CCR7, CXCR4 and VEGF-C on the lymph node metastasis of human pancreatic ductal adenocarcinoma. Oncol Lett 5:1572-1578 (2013).

Applications:WB=Western blot IHC-P=Immunohistochemistry (paraffin) IF-Cell=Immunofluorescence (Cell) IF-Tissue=Immunofluorescence (Tissue) FC=Flow cytometry IP=Immunoprecipitation