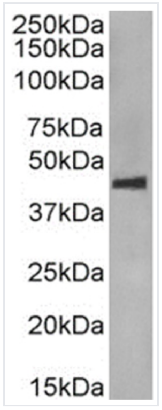
CCR5 Antibody – Mouse Monoclonal

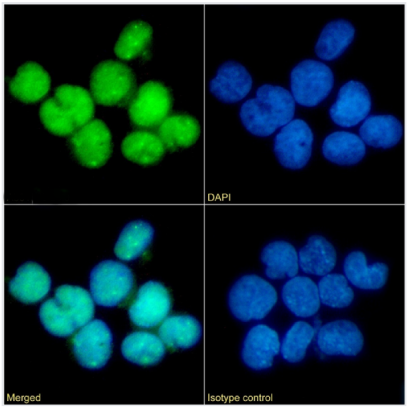
PRODUCT OVERVIEW

Product Name	CCR5, Monoclonal Antibody
Full Product Name	Anti-CCR5 (phosphoserine 349) [E11/19]
Product Gene Name	anti-CCR5 antibody
Product Synonym Names	CD195; C-C chemokine receptor type 5; C-C CKR-5; CC-CKR-5; CCR-5; CHEMR13; HIV-1 fusion coreceptor; p349; pS349; Ser-349; Ser349
Clonality	Monoclonal
Isotype	Mouse IgG1, kappa
Clone Number	E11/19
Host	Mouse
Species Reactivity	Human
Form/Format	PBS with 0.02% Proclin 300.
Purity/Purification	Purified antibody. Protein A affinity purified
Concentration	1mg/ml (lot specific)
Specificity	The E11/19 monoclonal antibody binds to phosphoserine 349 corresponding to 22 c-terminal amino acid residue of human CCR5. CCR5 is a receptor for a number of inflammatory CC-chemokines including CCL3/MIP-1-alpha, CCL4/MIP-1-beta and RANTES.
Preparation and Storage	Store at 4 degree C for up to 3 months. For longer storage, aliquot and store at -20 degree C.
Molecular Weight	40,524 Da
Chromosome Location	Chromosome: 3; NC_000003.11 (46411633..46417697). Location: 3p21.31
OMIM	601373
3D Structure	ModBase 3D Structure for P51681
Animal-free Manufacturing Platform	The recombinant antibody is manufactured using a recombinant, mammalian HEK293-based expression platform. The manufacturing platform is animal-free and animal component-free.
PMID	12403770
Product Categories/Family for anti-CCR5 antibody	immunology; chemokines; inflammation; phosphorylation
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-CCR5 antibody	Immunofluorescence (IF), Western Blot (WB), ELISA (EIA), Immunoprecipitation (IP)
Application Notes for anti-CCR5 antibody	The E11/19 antibody is recommended for for flow cytometric analysis, immunoblotting, and ELISA assay of CCR5 expression. It was also successfully utilized in the immunoprecipitation of CCR5 (Venuti et al., 2016). This antibody was demonstrated to detect pS349 CCR5 via Western blot when it was first activated to its phosphorylated form (Pollok-Kopp et al., 2003). Furthermore, E11/19 antibody was used to identify the localization of pS349 CCR5 in RBL cells via immunofluorescence (Pollok-Kopp et al., 2003). With other anti-CCR5 antibodies which react with nonphosporylated CCR5 (Ab01577) or CCR5 phosphorylated on different serine residues (Ab01579), it can be used to study dynamic regulation of CCR5 and of phosphorylation mechanisms.

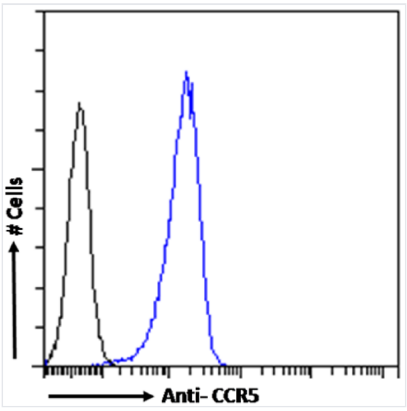
Related Product Information for anti-CCR5 antibody	Recombinant monoclonal antibody to CCR5 (phosphoserine 349). Recombinant Platform with variable regions (i.e. specificity) from the hybridoma E11/19. This antibody was raised by immunizing mice with a synthetic phosphopeptide (CEAPERA(pS)(pS)VYTR(pS)TGEQI(pS)VGL) corresponding to the C-terminal region of human CCR5.
Product References and Citations for anti-CCR5 antibody	Pollok-Koppet et al. Analysis of ligand-stimulated CC chemokine receptor 5 (CCR5) phosphorylation in intact cells using phosphosite-specific antibodies. J Biol Chem. 2003 Jan 24;278(4):2190-8. Epub 2002 Oct 27. Note on publication: This article describes the generation and characterization of the E11/19 antibody.
Other Notes	Small volumes of anti-CCR5 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for CCR5 purchase	MBS488760 is an antibody targeting CCR5. Also known as Anti-CCR5 (phosphoserine 349) [E11/19]. Reactive in Human. Host: Mouse.



Western Blot (WB) of anti-CCR5 antibody
Western Blot using anti-CCR5 (phosphoserine 349) antibody E11/19 (MBS488761) Molt4 cell lysate (35ug protein in RIPA buffer) was resolved on a SDS PAGE gel and blots were probed with the chimeric rabbit version of E11/19 (MBS488761) at 0.1ug/ml before detection using an anti-rabbit secondary antibody. A primary incubation of 1h was used and protein was detected by chemiluminescence.



Immunofluorescence (IF) of anti-CCR5 antibody
Immunofluorescence staining of fixed U937 cells with anti-CCR5 (phosphoserine 349) antibody E11/19 (MBS488761) Immunofluorescence analysis of paraformaldehyde fixed U937 cells on Shi-fix coverslips stained with the chimeric rabbit IgG version of E11/19 (MBS488761) at 10ug/ml for 1h followed by Alexa Fluor 488 secondary antibody (2ug/ml), showing membrane staining. The nuclear stain is DAPI (blue). Panels show from left-right, top-bottom MBS488761, DAPI, merged channels and an isotype control. The isotype control was an unknown specificity antibody (MBS488149) followed by staining with Alexa Fluor 488 secondary antibody.



Flow Cytometry (FC/FACS) of anti-CCR5 antibody
Flow cytometry using the anti-CCR5 (phosphoserine 349) antibody E11/19 (MBS488761). U937 cells were fixed using 2% PFA and stained with anti-unknown specificity antibody (MBS488149; isotype control, black line) or the rabbit IgG1 version of E11/19 (MBS488761, blue line) at a dilution of 1:100 for 1h at RT. After washing, the bound antibody was detected using a goat anti-rabbit IgG AlexaFluor 488 antibody at a dilution of 1:1000 and cells analyzed using a FACSCanto flow-cytometer.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CCR5. It may not necessarily be applicable to this product.

NCBI GI #	4502639
NCBI GeneID	1234
NCBI Accession #	NP_000570.1
UniProt Primary Accession #	P51681
UniProt Secondary Accession #	O14692; O14693; O14695; O14696; O14697; O14698; O14699; O14700; O14701; O14702; O14703
UniProt Related Accession #	P51681
GenBank Nucleotide #	NM_000579.3
NCBI Official Full Name	C-C chemokine receptor type 5
NCBI Official Synonym Full Names	chemokine (C-C motif) receptor 5 (gene/pseudogene)
NCBI Official Symbol	CCR5
NCBI Official Synonym Symbols	CKR5; CCR-5; CD195; CKR-5; CCCKR5; CMKBR5; IDDM22; CC-CKR-5
UniProt Protein Name	C-C chemokine receptor type 5
UniProt Synonym Protein Names	CHEMR13; HIV-1 fusion coreceptor
Protein Family	C-C chemokine receptor
UniProt Gene Name	CCR5
UniProt Synonym Gene Names	CMKBR5; C-C CKR-5; CC-CKR-5; CCR-5; CCR5
UniProt Entry Name	CCR5_HUMAN
NCBI Protein Information	C-C chemokine receptor type 5; chemr13; HIV-1 fusion coreceptor; chemokine receptor CCR5; C-C motif chemokine receptor 5 A159A
NCBI Summary for CCR5	This gene encodes a member of the beta chemokine receptor family, which is predicted to be a seven transmembrane protein similar to G protein-coupled receptors. This protein is expressed by T cells and macrophages, and is known to be an important co-receptor for macrophage-tropic virus, including HIV, to enter host cells. Defective alleles of this gene have been associated with the HIV infection resistance. The ligands of this receptor include monocyte chemoattractant protein 2 (MCP-2), macrophage inflammatory protein 1 alpha (MIP-1 alpha), macrophage inflammatory protein 1 beta (MIP-1 beta) and regulated on activation normal T expressed and secreted protein (RANTES). Expression of this gene was also detected in a promyeloblastic cell line, suggesting that this protein may play a role in granulocyte lineage proliferation and differentiation. This gene is located at the chemokine receptor gene cluster region. Two transcript variants encoding the same protein have been found for this gene. [provided by RefSeq, Jul 2008]

UniProt Comments for CCR5	CCR5: a 7-transmembrane G-linked receptor for a number of inflammatory C-C type chemokines including MIP-1-alpha, MIP-1-beta and RANTES. Transduces a signal by increasing the intracellular calcium ion level. May play a role in the control of granulocytic lineage proliferation or differentiation. Acts as a coreceptor (along with CD4) for HIV-1 R5 isolates. Interacts with PRAF2. Interacts with HIV-1 surface protein gp120. Efficient ligand binding to CCL3/MIP-1alpha and CCR4/MIP-1beta requires sulfation, O-glycosylation and sialic acid modifications. Glycosylation on S6 is required for efficient binding of CCL4. Interacts with ADRBK1. Interacts with ARRB1 and ARRB2. Variations in CCR5 are associated with resistance or susceptibility to immunodeficiency virus type 1 (resistance or susceptibility to HIV-1). Variations in CCR5 gene also influence the rate of progression to AIDS after infection. R60S variant, a naturally occurring mutation in a conserved residue in the first intracellular domain of CCR5, results in reduced amounts of the protein in the membrane and consequently may be associated with reduced susceptibility to infection by microbes that depend on these molecules as their receptors. Variations in CCR5 are associated with susceptibility to West Nile virus (WNV) infection Protein type: Receptor, GPCR; Motility/polarity/chemotaxis; Receptor, cytokine; GPCR, family 1; Membrane protein, integral; Membrane protein, multi-pass Chromosomal Location of Human Ortholog: 3p21.31 Cellular Component: cell surface; integral to plasma membrane; cytoplasm; plasma membrane; endosome; external side of plasma membrane Molecular Function: protein binding; C-C chemokine receptor activity; chemokine receptor activity; coreceptor activity; C-C chemokine binding; actin binding; phosphoinositide phospholipase C activity Biological Process: viral reproduction; MAPKKK cascade; calcium-mediated signaling; chemotaxis; release of sequestered calcium ion by sarcoplasmic reticulum into cytosol; G-protein coupled receptor protein signaling pathway; elevation of cytosolic calcium ion concentration; cell surface receptor linked signal transduction; cell-cell signaling; calcium ion transport; cellular defense response; dendritic cell chemotaxis; entry into host cell; immune response; inflammatory response Disease: West Nile Virus, Susceptibility To; Diabetes Mellitus, Insulin-dependent, 22; Hepatitis C Virus, Susceptibility To
Research Articles on CCR5	**1.** The prognostic implications of two polymorphisms in TP53 (p.R72P, PIN3 Ins16bp) and one in CCR5 (CCR5/32) in sporadic breast cancer patients.
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