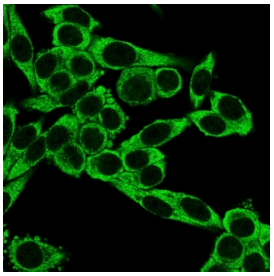
CCR5 Antibody / CD195 Antibody [clone 12D1] (V2462)

Catalog No.	Formulation	Size
V2462-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V2462-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V2462SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

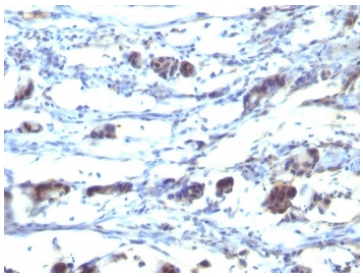
Citations (8)

Bulk quote request

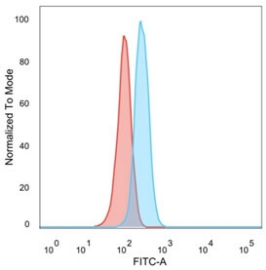
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2a, kappa
Clone Name	12D1
Purity	Protein G affinity chromatography
UniProt	P51681
Applications	Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT Flow cytometry: 1-2ug/million cells Immunofluorescence: 1-2ug/ml
Limitations	This CCR5 Antibody / CD195 Antibody is available for research use only.



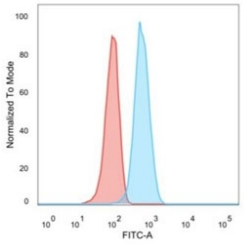
CCR5 Antibody HeLa Cell IF. Immunofluorescent staining of PFA-fixed human HeLa cells was performed with CCR5 Antibody / CD195 Antibody (clone 12D1). The image demonstrates prominent membranous and cytoplasmic staining with relatively low nuclear signal, consistent with the expected localization of the CCR5 chemokine receptor on the plasma membrane and within intracellular trafficking compartments. This CCR5 Antibody supports immunofluorescence studies of CD195 expression, chemokine receptor biology, immune cell signaling, and HIV coreceptor research.



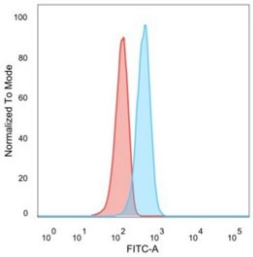
CCR5 Antibody Human Stomach IHC. FFPE human stomach tissue was stained with CCR5 Antibody / CD195 Antibody (clone 12D1) following heat-induced epitope retrieval by boiling sections in pH9 Tris-EDTA buffer (10 mM Tris, 1 mM EDTA) for 20 minutes and allowing them to cool before staining. The image demonstrates distinct cytoplasmic and membranous staining in scattered cells within the gastric tissue with minimal background staining, consistent with the expected expression pattern of the CCR5 chemokine receptor in immune cell populations. This CCR5 Antibody supports immunohistochemical studies of CD195 expression, chemokine receptor biology, immune cell trafficking, and inflammatory disease research.



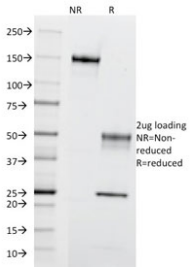
CCR5 Antibody HeLa Cell FACS. Flow cytometry analysis of PFA-fixed human HeLa cells was performed using CCR5 Antibody / CD195 Antibody (clone 12D1). Red = isotype control and Blue = CCR5 antibody. The clear rightward shift of the CCR5 antibody population relative to the isotype control demonstrates specific detection of endogenous CCR5 expression on HeLa cells. This CCR5 Antibody supports flow cytometric studies of CD195 expression, chemokine receptor biology, immune cell signaling, and HIV coreceptor research.



CCR5 Antibody MCF7 Cell FACS. Flow cytometry analysis of human MCF7 cells was performed using CCR5 Antibody / CD195 Antibody (clone 12D1). Red = isotype control and Blue = CCR5 antibody. The clear rightward shift of the CCR5 antibody population relative to the isotype control demonstrates specific detection of endogenous CCR5 expression in MCF7 cells. This CCR5 Antibody supports flow cytometric studies of CD195 expression, chemokine receptor biology, immune signaling, and HIV coreceptor research.



CCR5 Antibody U-87 MG Cell FACS. Flow cytometry analysis of human U-87 MG cells was performed using CCR5 Antibody / CD195 Antibody (clone 12D1). Red = isotype control and Blue = CCR5 antibody. The clear rightward shift of the CCR5 antibody population relative to the isotype control demonstrates specific detection of endogenous CCR5 expression in U-87 MG cells. This CCR5 Antibody supports flow cytometric studies of CD195 expression, chemokine receptor biology, immune signaling, and HIV coreceptor research.



SDS-PAGE analysis of purified, BSA-free CCR5 Antibody / CD195 Antibody (clone 12D1) as confirmation of integrity and purity.

Description

CCR5 antibody (clone 12D1) detects C-C chemokine receptor type 5, also known as CD195, a seven-transmembrane G protein-coupled receptor that mediates immune cell migration and activation in response to chemokines such as CCL3 (MIP-1 alpha), CCL4 (MIP-1 beta), and CCL5 (RANTES). The UniProt recommended name is C-C chemokine receptor type 5 (CCR5). This receptor is predominantly expressed on T cells, macrophages, dendritic cells, and microglia, where it regulates leukocyte trafficking during immune surveillance and inflammatory responses.

Functionally, CCR5 antibody (clone 12D1) recognizes the full-length CCR5 protein, which has an approximate molecular

weight of 40 kDa and resides in the plasma membrane. CCR5 acts as a co-receptor for several chemokines and also serves as a key viral entry point for macrophage-tropic strains of HIV-1. The receptor's extracellular N-terminus and second extracellular loop are critical for ligand binding and for interaction with the HIV-1 gp120 envelope glycoprotein. Genetic variation in CCR5, such as the well-known 32-base pair deletion (CCR5-delta32), leads to altered surface expression and resistance to HIV infection.

Clone 12D1 is a monoclonal antibody that has been utilized in multiple published studies investigating CCR5 expression, receptor internalization, and immune cell signaling. Research applications using this clone include flow cytometric analysis of leukocyte subsets, immunohistochemical detection in lymphoid tissue, and receptor occupancy or downregulation assays. The clone has also been referenced in studies exploring the molecular mechanisms of HIV entry inhibition and chemokine-mediated receptor desensitization, supporting its specificity and functional reliability across diverse assay formats.

The CCR5 (CD195) protein plays a critical role in inflammatory and immune pathways including Th1 and Th17 cell trafficking, antiviral defense, and autoimmune regulation. CCR5 signaling activates downstream pathways involving G proteins, phospholipase C, and MAP kinases, influencing calcium flux and cytokine production. In addition to its physiological roles, CCR5 has been extensively studied as a therapeutic target in immunology, infectious disease, and oncology. Pharmacological blockade or genetic disruption of CCR5 has been shown to limit HIV-1 infection, reduce inflammatory damage in autoimmune disease, and alter tumor microenvironmental signaling.

CCR5 antibody (clone 12D1) provides specific and high-affinity recognition of CCR5 in human samples and is valuable for studies of receptor expression, immune regulation, and viral co-receptor biology. The antibodyÃ¢Â€Â™s proven use in research publications supports its performance in flow cytometry, immunohistochemistry, and cell-based receptor analysis. NSJ Bioreagents offers CCR5 antibody (clone 12D1) validated for use in relevant research applications supporting studies of chemokine receptor signaling and host-pathogen interactions.

Researchers studying chemokine receptors, immune cell surface markers, leukocyte trafficking, and HIV coreceptor biology may also be interested in exploring our CD Marker Antibodies page for additional validated research antibodies.

Application Notes

Optimal dilution of the CCR5 Antibody / CD195 Antibody should be determined by the researcher.

1. The prediluted format is supplied in a dropper bottle and is optimized for use in IHC. After epitope retrieval step (if required), drip mAb solution onto the tissue section and incubate at RT for 30 min.

Immunogen

Human native protein was used as the immunogen for the CCR5 antibody. The antibody binds to the N-terminal extracellular domain of CCR5/CD195.

Storage

Store the CCR5 antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

CCR5 antibody, C-C Chemokine Receptor Type 5 antibody, CD195 antibody, C-C CKR-5 antibody, CC Chemokine Receptor 5 antibody

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