

## CD195 / CCR-5 Monoclonal Mouse Antibody (12D1)

### Product Description

Reacts with the N-terminal extracellular domain of CD195. The CC chemokine receptor 5 (CCR5) is a member of the CC-chemokine receptor family, and has the characteristic structure of a 7 transmembrane G protein-coupled receptor (GPCR). CCR5 regulates trafficking and effector functions of memory/effector Th1 cells, macrophages, NK cells, and immature dendritic cells. CCR5 and its ligands play an important role in viral pathogenesis. CCR5 represents the co-receptor for macrophage (M) and dual (T cell and M)-tropic immunodeficiency viruses. Together with the CD4 binding receptor, CCR5 plays a critical role in HIV entry into the target cells. Moreover, the CCR5 ligands macrophage inflammatory protein (MIP)-1 alpha, MIP-1 beta and RANTES act as endogenous inhibitors of HIV infection, making both CCR5 and its chemokine ligands attractive therapeutic targets for HIV infection. Recent studies have also highlighted the role of CCR5 in a variety of other human diseases, ranging from infectious and inflammatory diseases to cancer. Primary antibodies are available purified, or with a selection of fluorescent CF® dyes and other labels. CF® dyes offer exceptional brightness and photostability. See the [CF® Dye Brochure](#) for more information. Note: Conjugates of blue fluorescent dyes like CF®405S and CF®405M are not recommended for detecting low abundance targets, because blue dyes have lower fluorescence and can give higher non-specific background than other dye colors. **Stock status:** Because Biotium offers a large number of antibody and conjugation options, primary antibody conjugates may be made to order. Typical lead times are up to one week for CF® dye and biotin conjugates, and up to 2-3 weeks for fluorescent protein and enzyme conjugates. Please email [order@biotium.com](mailto:order@biotium.com) to inquire about stock status and lead times before placing your order.

#### Product attributes

Antibody number	#0156
Antibody reactivity (target)	CCR-5, CD195
Antibody type	Primary
Host species	Mouse
Clonality	Monoclonal
Clone	12D1
Isotype	IgG2a, kappa
Molecular weight	45 kDa
Synonyms	CC Chemokine Receptor Type 5; CC-CCR-5; CCR5; Chemokine CC motif receptor 5; Chemokine receptor CCR5; CHEMR13; CCR5; CMKBR5; HIV-1 fusion coreceptor; IDDM22; MIP-1 alpha receptor
Human gene symbol	CCR5
Entrez gene ID	1234
SwissProt	P51681
Unigene	450802
Immunogen	Human native CCR5 protein
Antibody target cellular localization	Plasma membrane
Verified antibody applications	Flow (verified), IF (verified), IHC (FFPE) (verified)
Species reactivity	Human
Antibody application notes	Higher concentration may be required for direct detection using primary antibody conjugates than for indirect detection with secondary antibody. Immunofluorescence 0.5-1 ug/mL. Immunohistochemistry Frozen 0.5-1.0 ug/mL. Flow Cytometry 0.5-1 ug/million cells/0.1 mL. Optimal dilution for a specific application should be determined by user.
Positive control	Human lymph node and tonsil.
Shipping condition	Room temperature
Storage Conditions	Store at 2 to 8 °C, Protect fluorescent conjugates from light, Note: store BSA-free antibodies at -10 to -35 °C
Shelf life	Guaranteed for at least 24 months from date of receipt when stored as recommended
Regulatory status	For research use only (RUO)
Antibody/conjugate formulation	Conjugates: 0.1 mg/mL in PBS/0.1% BSA/0.05% azide, HRP conjugates: 0.1 mg/mL in PBS/0.05% BSA, Purified: 0.2 mg/mL in PBS/0.05% BSA/0.05% azide, Purified, BSA-free: 1 mg/mL in PBS without azide
Antibody research areas	Immunology
Cell/tissue expression	Dendritic cells, Monocytes/macrophages, NK cells, T-cells

Antibody # prefix	Conjugation	Ex/Em (nm)	Laser line	Detection channel	Dye Features
BNC04	CF®405S	404/431	405	DAPI (microscopy), AF405	<a href="#">CF®405S Features</a>
BNC88	CF®488A	490/515	488	GFP, FITC	<a href="#">CF®488A Features</a>
BNC68	CF®568	562/583	532, 561	RFP, TRITC	<a href="#">CF®568 Features</a>
BNC94	CF®594	593/614	561	Texas Red®	<a href="#">CF®594 Features</a>
BNC40	CF®640R	642/662	633-640	Cy®5	<a href="#">CF®640R Features</a>
BNC47	CF®647	650/665	633-640	Cy®5	<a href="#">CF®647 Features</a>
BNCB	Biotin	N/A	N/A	N/A	
BNUB	Purified	N/A	N/A	N/A	
BNUM	Purified, BSA-free	N/A	N/A	N/A	

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