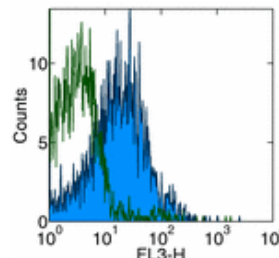


Product Information

Contents: Affinity Purified anti-human Fusin (CXCR4)
Catalog Number: 14-9999
Sizes: 25 ug, 100 ug
Formulation: Phosphate buffer pH 7.2,
150 mM NaCl, 0.09% NaN₃
Storage Conditions: Store at 4°C.
Avoid repeated freeze/thaw cycles.
Clone: 12G5
Isotype: Mouse IgG2a, κ



Surface staining of normal human peripheral blood cells with anti-human CXCR4 (12G5) PE-Cy5. Autofluorescence is indicated by open histogram. Cells in the lymphocyte population were used for analysis.

Available Formats of This Product

Cat. No.	Format	Excite (nm)	Emit (nm)	Reported Applications
12-9999	PE anti-human CXCR4 (Fusin)	488	575	FC
13-9999	Biotin anti-human CXCR4 (Fusin)	N/A	N/A	FC
14-9999	Affinity Purified anti-human CXCR4 (Fusin)	N/A	N/A	FA FC
15-9999	PE-Cy5 anti-human CXCR4 (Fusin)	488	670	FC
16-9999	Functional Grade* Purified anti-human CXCR4 (Fusin)	N/A	N/A	FA FC
17-9999	Coming Soon! - Allophycocyanin (APC) anti-human CXCR4 (Fusin)	633	660	FC
25-9999	Phycoerythrin-Cy7 (PE-Cy7) anti-human CXCR4 (Fusin)	488	760	FC

*Functional Grade™ (FG™): Azide-free, sterile-filtered, and endotoxin < 0.001 ng/μg.
Purified: Contains azide, not sterile-filtered, and not endotoxin tested.

Description

The 12G5 monoclonal antibody reacts with human CXCR4 (CD184), also termed Fusin, LESTR, or HUMSTR. Fusin is a member of the G-protein-coupled chemokine receptor family with seven membrane-spanning domains, and functions as a coreceptor for X4 HIV-1 entry into CD4⁺ cells. CXCR4 is expressed predominantly on naive T cell subsets of peripheral blood and is rapidly upregulated by PHA and IL-2 stimulation. 12G5 shows partial inhibition of chemotaxis and calcium influx induced by SDF-1 (the natural ligand of CXCR4), blocks CD4-independent HIV-2 infection, and blocks CD4-dependent infection by some T-tropic HIV-1 isolates.

Usage

For research use only, not for diagnostic or therapeutic use. The 12G5 antibody has been reported for use in flow cytometric analysis. It has also been reported in blocking of CXCR4 in functional studies. (Please use Functional Grade purified 12G5, cat. 16-9999, in functional assays.)

Applications Tested

The 12G5 antibody has been tested by flow cytometric analysis of human peripheral leukocytes. This can be used at less than or equal to 0.5 μg per 100 μl blood (or per 1 million cells in 100 μl total staining volume). It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

Related Products

Cat. 11-4011 FITC Anti-Mouse IgG
Cat. 13-4013 Biotin Anti-Mouse IgG (clone Polyclonal)
Cat. 11-4317 Streptavidin-FITC (Fluorescein isothiocyanate)

- Cat. 12-4317 Streptavidin-PE (Phycoerythrin)
- Cat. 17-4317 Streptavidin Allophycocyanin (SA-APC)
- Cat. 14-4724 Affinity Purified Mouse IgG2a, K Isotype Control
- Cat. 12-9999 PE anti-human CXCR4 (Fusin) (clone 12G5)
- Cat. 13-9999 Biotin anti-human CXCR4 (Fusin) (clone 12G5)
- Cat. 15-9999 PE-Cy5 anti-human CXCR4 (Fusin) (clone 12G5)
- Cat. 16-9999 Functional Grade Purified anti-human CXCR4 (Fusin) (clone 12G5)

References

- McKnight, A. et al. (1997). "Inhibition of human immunodeficiency virus fusion by a monoclonal antibody to a coreceptor (CXCR4) is both cell type and virus strain dependent." J Virol 71(2): 1692-6.
- Bleul, C. et al. (1997). "The HIV coreceptors CXCR4 and CCR5 are differentially expressed and regulated on human T lymphocytes." Proc Natl Acad Sci U S A 94(5): 1925-30.

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