

BD PharMingen Technical Data Sheet

2H4

BIOTINYLATED MOUSE ANTI-HUMAN CCR7 MONOCLONAL ANTIBODY

PRODUCT INFORMATION

Catalog Number: **551281** (Was: 24432A), **0.1 mg**
Clone: **2H4**
Antibody Isotype: **Mouse IgM, κ**
Contents: **Biotinylated antibody in 10 mM sodium phosphate, pH 7.2, with 500 mM NaCl and 0.09% (w/v) sodium azide.**

DESCRIPTION

The monoclonal antibody 2H4 reacts with the human CC chemokine receptor, CCR7. CCR7 (previously known as BLR-2, EBI-1 and CMKBR7)¹⁻³, a seven-transmembrane, G-protein-coupled receptor, is the specific receptor for CC chemokines, MIP-3 β /Exodus 3/ELC/CCL19 and 6CKine/Exodus 2/SLC/TCA4/CCL21^{4,5}. It has been shown that CCR7 mRNA is expressed mainly in lymphoid tissues including spleen, lymph nodes and tonsil.^{1,2} CCR7 mRNA was also detected in peripheral T- and B-lymphocytes^{1,3,6,7}, in BM and cord blood CD34-positive cells⁸ and mature dendritic cells⁹. The human CCR7 gene, unlike other CC chemokine receptor genes, has been mapped to chromosome 17q12.² The immunogen used to generate 2H4 hybridoma was human CCR7-transfected L1.2 mouse lymphoma cells. This antibody is NOT a neutralizing antibody.

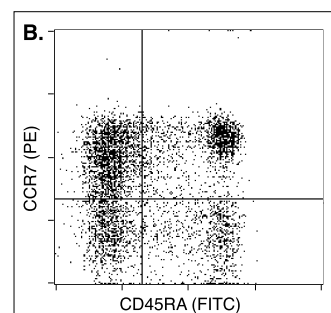
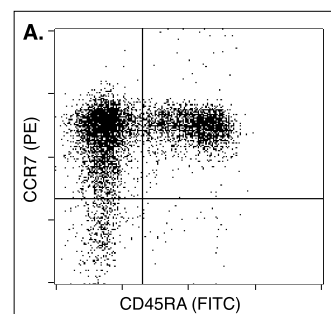
PREPARATION AND STORAGE

The 2H4 antibody is purified from tissue culture supernatant by Protein G chromatography and is conjugated via NHS-biotin reaction under optimum conditions. The solution was dialyzed to remove unconjugated biotin. Store conjugate at 4° C. **Do not freeze.**

APPLICATION NOTES

The biotinylated 2H4 antibody can be used for the immunofluorescent staining and flow cytometric analyses of human leukocytes and cell lines that express CCR7 (see *Figure*).

Detection of CCR7 expression on CD4 and CD8-positive human peripheral lymphocytes by biotinylated anti-human CCR7 antibody 2H4 (Cat. No. 24432A). Human PBMC were stained with 1.0 μ g of biotinylated 2H4 per 10⁶ cells plus streptavidin-phycoerythrin (Cat. No. 13025D) using 3-step staining protocol outlined above and anti-human CD45RA-FITC (Cat. No. 31264X). The data shown are derived from the CD4-positive (based on staining with anti-human CD4-APC, Cat. No. 30159X, Panel A) and CD8-positive (based on staining with anti-human CD8-APC, Cat. No. 30329X, Panel B) lymphocyte gated populations and displayed as bivariate dot plots.



Investigators are advised to determine optimal concentrations for individual applications.

REFERENCES

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Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.

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