# Technical Data Sheet Purified Mouse Anti-Human CD194

### **Product Information**

Material Number:	551121
Alternate Name:	CCR4; C-C chemokine receptor type 4; CMKBR4; K5-5
Size:	0.1 mg
Concentration:	0.5 mg/ml
Clone:	1G1
Immunogen:	Human CCR4 Transfected Cell Line
Isotype:	Mouse IgG1, κ
Reactivity:	QC Testing: Human
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

#### Description

The monoclonal antibody 1G1 reacts with CD194, also known as the human CC Chemokine Receptor type 4 (CCR4). CCR4 is expressed on activated Th2 cells, regulatory T cells, activated NK cells, basophils, monocytes and platelets. CCR4 is a seven-transmembrane, G-protein-coupled receptor, and is the specific receptor for CC chemokines, CCL22/MDC/Macrophage-Derived Chemokine and CCL17/TARC/Thymus and Activation-Regulated Chemokine. It has been reported that CCR4 mRNA is expressed mainly in the thymus and spleen. The human CCR4 gene has been mapped to chromosome 3p24. The purified form of this antibody has been reported not to be a neutralizing antibody. The immunogen used to generate the 1G1 hybridoma has been reported to be human CCR4 transfected L1.2 mouse lymphoma cells.



Flow cytometric detection of CD194 (CCR4) on human peripheral lymphocytes. Human PBMC were stained with 0.25 µg of the purified Mouse Anti-Human CD194 (CCR4) antibody using a Biotin Goat Anti-Mouse Ig secondary antibody and with PE Streptavidin in conjunction with either a FITC Mouse Anti-Human CD4 antibody (Cat. No. 555346, left panel) or with a FITC Mouse Anti-Human CD8 antibody (Cat. No. 555366, right panel). The data reflects gating on lymphocytes, based on forward and side scattered light signals. The level of nonspecific staining was assessed by using purified mouse IgG1 (Cat. No. 555746) as an isotype control. The quadrant markers for the bivariate dot plots were set based on the isotype control.

# **Preparation and Storage**

Store undiluted at 4°C.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

#### **Application Notes**

Application		
Flow cytometry	Routinely Tested	
		-

#### **Recommended Assay Procedure:**

*Flow cytometry:* Chemokine receptors are known to internalize during manipulation resulting in low frequency expression. Investigators are advised to perform immunophenotyping studies of chemokine receptors on freshly collected samples (<24 Hrs). Incubation with the antibody should be done at 4°C in the dark. Cellular manipulation, such as Ficoll separation, freezing, or exposure to cold temperatures prior to staining should be minimized and have been shown to cause a decrease in staining intensity and/or inconsistent results.

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Investigators should note that a multiple-step staining procedure is recommended, in some instances, to amplify immunofluorescent signals for the flow cytometric analysis of CCR4 expression. Investigators may find the Purified Mouse Anti-Human CD194 (CCR4) antibody (MN 551121) to be useful in conjunction with appropriate secondary and tertiary reagents for detecting low frequency expression, such as with Biotin Goat Anti-Mouse Ig (MN 553999) and PE Streptavidin (MN 554061).

## **Suggested Companion Products**

Catalog Number	Name	Size	Clone	
555346	FITC Mouse Anti-Human CD4	100 tests	RPA-T4	
555366	FITC Mouse Anti-Human CD8	100 tests	RPA-T8	
555746	Purified Mouse IgG1, ĸ Isotype Control	0.1 mg	MOPC-21	
554061	PE Streptavidin	0.5 mg	(none)	
553999	Biotin Goat Anti-Mouse Ig (Multiple Adsorption)	0.5 mg	Polyclonal	

#### **Product Notices**

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.

- 2. 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.
- 3. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

#### References

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