Technical Data Sheet

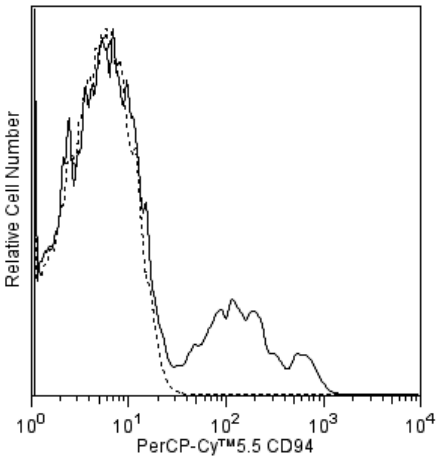
# PerCP-Cy™5.5 Mouse Anti-Human CD94

## Product Information

| | |
|---|---|
| **Material Number:** | **562361** |
| **Alternate Name:** | KLRD1; Killer cell lectin-like receptor subfamily D member 1; KP43 |
| **Size:** | 100 tests |
| **Vol. per Test:** | 5 µl |
| **Clone:** | HP-3D9 |
| **Immunogen:** | Human NK Cells |
| **Isotype:** | Mouse (BALB/c) IgG1, κ |
| **Reactivity:** | QC Testing: Human |
| **Workshop:** | V NK82 |
| **Storage Buffer:** | Aqueous buffered solution containing BSA and ≤0.09% sodium azide. |

## Description

The HP-3D9 monoclonal antibody specifically binds to a 70 kDa disulfide-linked dimer, also known as Kp43, expressed on natural killer (NK) cells, especially activated NK cells. It is also expressed on γ/δ TCR+ T lymphocytes and on some CD8+CD56+ α/β TCR+ clones. Reports demonstrate that HP-3D9 markedly inhibits cytolytic activity of polyclonally-activated NK cells. CD94 (Kp43) plays a role in regulation of the function of NK cell activation and adhesion.




***Flow cytometric analysis of CD94 expression on human peripheral blood lymphocytes.*** *Human whole blood was stained with either PerCP-Cy™5.5 Mouse Anti-Human CD94 antibody (Cat. No. 562361; solid line histogram) or with a PerCP-Cy™5.5 Mouse IgG1, κ Isotype Control (Cat. No. 550795; dashed line histogram). The erythrocytes were lysed with BD Pharm Lyse™ Lysing Buffer (Cat. No. 555899). The fluorescence histograms were derived from events with the forward and side light-scatter characteristics of viable lymphocytes. Flow cytometry was performed using a BD™ LSR II Flow Cytometer System.*

## Preparation and Storage

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

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

The antibody was conjugated with PerCP-Cy5.5 under optimum conditions, and unconjugated antibody and free PerCP-Cy5.5 were removed. Storage of PerCP-Cy5.5 conjugates in unoptimized diluent is not recommended and may result in loss of signal intensity.

## Application Notes

**Application**

| | |
|---|---|
| Flow cytometry | Routinely Tested |

## Suggested Companion Products

| Catalog Number | Name | Size | Clone |
|---|---|---|---|
| 550795 | PerCP-Cy™5.5 Mouse IgG1 κ Isotype Control | 0.1 mg | MOPC-21 |
| 555899 | Lysing Buffer | 100 ml | (none) |
| 554656 | Stain Buffer (FBS) | 500 ml | (none) |

## Product Notices

1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use 1 × 10^6 cells in a 100-µl experimental sample (a test).
2. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
3. An isotype control should be used at the same concentration as the antibody of interest.

**BD Biosciences**

*bdbiosciences.com*

| United States | Canada | Europe | Japan | Asia Pacific | Latin America/Caribbean |
|---|---|---|---|---|---|
| 877.232.8995 | 800.979.9408 | 32.53.720.550 | 0120.8555.90 | 65.6861.0633 | 55.11.5185.9995 |

For country contact information, visit **bdbiosciences.com/contact**

4. Cy is a trademark of Amersham Biosciences Limited. This conjugated product is sold under license to the following patents: US Patent Nos. 5,486,616; 5,569,587; 5,569,766; 5,627,027.
5. Please observe the following precautions: Absorption of visible light can significantly alter the energy transfer occurring in any tandem fluorochrome conjugate; therefore, we recommend that special precautions be taken (such as wrapping vials, tubes, or racks in aluminum foil) to prevent exposure of conjugated reagents, including cells stained with those reagents, to room illumination.
6. 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.
7. PerCP-Cy5.5–labelled antibodies can be used with FITC- and R-PE–labelled reagents in single-laser flow cytometers with no significant spectral overlap of PerCP-Cy5.5, FITC, and R-PE fluorescence.
8. PerCP-Cy5.5 is optimized for use with a single argon ion laser emitting 488-nm light. Because of the broad absorption spectrum of the tandem fluorochrome, extra care must be taken when using dual-laser cytometers, which may directly excite both PerCP and Cy5.5™. We recommend the use of cross-beam compensation during data acquisition or software compensation during data analysis.
9. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
10. This product is subject to proprietary rights of Amersham Biosciences Corp. and Carnegie Mellon University and made and sold under license from Amersham Biosciences Corp. This product is licensed for sale only for research. It is not licensed for any other use. If you require a commercial license to use this product and do not have one return this material, unopened to BD Biosciences, 10975 Torreyana Rd, San Diego, CA 92121 and any money paid for the material will be refunded.
11. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

## References


Aramburu J, Balboa MA, Ramírez A, et al. A novel functional cell surface dimer (Kp43) expressed by natural killer cells and T cell receptor-gamma/delta+ T lymphocytes. I. Inhibition of the IL-2-dependent proliferation by anti-Kp43 monoclonal antibody. *J Immunol.* 1990; 144(8):3238-3247. (Immunogen: Flow cytometry, Immunoprecipitation, Inhibition)

Balboa MA, Balsinde J, Aramburu J, Mollinedo F, López-Botet M. Phospholipase D activation in human natural killer cells through the Kp43 and CD16 surface antigens takes place by different mechanisms. Involvement of the phospholipase D pathway in tumor necrosis factor alpha synthesis. *J Exp Med.* 1992; 176(1):9-17. (Clone-specific: Stimulation)

Pérez-Villar JJ, Melero I, Rodríguez A, et al. Functional ambivalence of the Kp43 (CD94) NK cell-associated surface antigen. *J Immunol.* 1995; 154(11):5779-5788. (Clone-specific: Inhibition, Stimulation)



**BD Biosciences**

*bdbiosciences.com*

| United States | Canada | Europe | Japan | Asia Pacific | Latin America/Caribbean |
|---|---|---|---|---|---|
| 877.232.8995 | 800.979.9408 | 32.53.720.550 | 0120.8555.90 | 65.6861.0633 | 55.11.5185.9995 |

For country contact information, visit **bdbiosciences.com/contact**