

## Technical Data Sheet

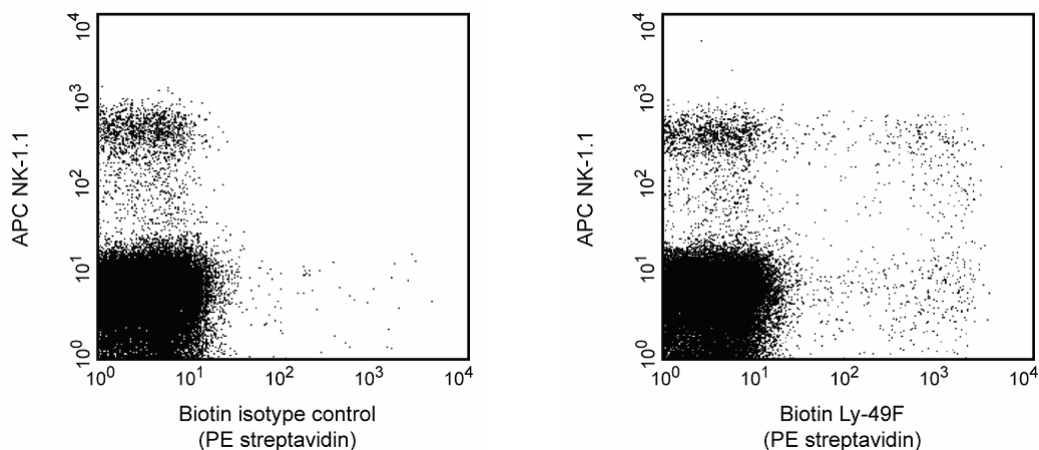
## Biotin Mouse anti-Mouse Ly-49F

## Product Information

<b>Material Number:</b>	550986
<b>Size:</b>	0.1 mg
<b>Concentration:</b>	0.5 mg/ml
<b>Clone:</b>	HBF-719
<b>Immunogen:</b>	CHO-K1 cells transfected with the B6 allele of the Ly-49F gene, <sup>1</sup> Klra62 Transfected Cell Line
<b>Isotype:</b>	Mouse IgG1, $\kappa$
<b>Reactivity:</b>	QC Testing: Mouse
<b>Storage Buffer:</b>	Aqueous buffered solution containing $\leq 0.09\%$ sodium azide.

## Description

The HBF-719 antibody reacts with the B6 alloantigen of Ly-49F, an inhibitory receptor which is expressed on subsets of natural killer (NK) cells, NK-1.1+ (or DX5+) T lymphocytes (NK-T cells), and on a population of memory CD8+ T lymphocytes in C57BL/6 mice, 1 but not AKR/J, BALB/c, C3H/HeN, DBA/1, or SJL mice.<sup>3</sup> The Ly-49 family of NK-cell receptors are disulfide linked type-II transmembrane protein homodimers with extracellular carbohydrate recognition domains (CRD). The Ly-49 family members are expressed independently, such that an individual NKor T-cell may display more than one class of Ly-49 receptor homodimers. Ly-49F has an ITIM (Immunoreceptor Tyrosine-based Inhibitory Motif) in its cytoplasmic tail. Therefore, it is probably an inhibitory receptor. It weakly binds to cells expressing the H-2d MHC class I alloantigens.



*Two-color analysis of Ly-49F expression on splenic NK cells. C57BL/6 splenocytes were simultaneously stained with APC-conjugated mAb PK136 (anti-mouse NK-1.1, Cat. no. 557391, both panels) and biotinylated mAb MOPC-31C (mouse IgG1,  $\kappa$  isotype control, Cat. no. 550615, Left Panel) or biotinylated mAb HBF-719 (Right Panel), followed by Streptavidin-PE (Cat. no. 554061, both panels). Flow cytometry was performed on a FACSCalibur® (BDIS, San Jose, CA).*

## Preparation and Storage

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

The antibody was conjugated with biotin under optimum conditions, and unreacted biotin was removed.

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

## Application Notes

## Application

Flow cytometry

Routinely Tested

## BD Biosciences

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## Suggested Companion Products

<u>Catalog Number</u>	<u>Name</u>	<u>Size</u>	<u>Clone</u>
550615	Biotin Mouse IgG1 $\kappa$ Isotype Control	0.25 mg	MOPC-31C
554061	PE Streptavidin	0.5 mg	(none)

## Product Notices

1. Please refer to [www.bdbiosciences.com/pharming/en/protocols](http://www.bdbiosciences.com/pharming/en/protocols) for technical protocols.
2. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
3. 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.

## References

Coles MC, McMahon CW, Takizawa H, Raulet DH. Memory CD8 T lymphocytes express inhibitory MHC-specific Ly49 receptors. *Eur J Immunol.* 2000; 30(1):236-244.(Immunogen)

Hanke T, Takizawa H, McMahon CW, et al. Direct assessment of MHC class I binding by seven Ly49 inhibitory NK cell receptors. *Immunity.* 1999; 11(1):67-77.(Biology)

Raulet DH, Held W, Correa I, Dorfman JR, Wu MF, Corral L. Specificity, tolerance and developmental regulation of natural killer cells defined by expression of class I-specific Ly49 receptors. *Immunol Rev.* 1997; 155:41-52.(Biology)

Takei F, Brennan J, Mager DL. The Ly-49 family: genes, proteins and recognition of class I MHC. *Immunol Rev.* 1997; 155:67-77.(Biology)

The Jackson Laboratory. Mouse Genome Database (MGD), Mouse Genome Informatics Web Site. Available: <http://www.informatics.jax.org> September, 2003. (Immunogen)