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NK1.1/CD161 (PK136) Mouse mAb (PE Conjugate)

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: FC-FP, FC-L	Reactivity: M	Sensitivity: Endogenous	Source/Isotype: Mouse IgG2a kappa	UniProt ID: #P27814	Entrez-Gene Id: 17059
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Product Usage Information

For optimal flow cytometry results, we recommend 0.5 µg of antibody per test.

Application

Flow Cytometry (Fixed/Permeabilized)
Flow Cytometry (Live)

Dilution

1:40
1:40

Storage

Supplied in 10 mM NaH₂PO₄, 150 mM NaCl, 0.09% NaN₃, 0.1% gelatin, pH 7.2. This product is stable for 12 months when stored at 4°C. Do not aliquot the antibody. Protect from light. Do not freeze.

Specificity/Sensitivity

NK1.1/CD161 (PK136) Mouse mAb (PE Conjugate) recognizes endogenous levels of total NK1.1/CD161 protein. This antibody detects an epitope within the extracellular domain.

Source / Purification

This monoclonal antibody was purified from tissue culture supernatant via affinity chromatography. The purified antibody was conjugated under optimal conditions, with unreacted dye removed from the preparation.

Description

This Cell Signaling Technology antibody is conjugated to PE and tested in-house for direct flow cytometric analysis in mouse cells.

Background

CD161/KLRB1 (Killer cell lectin-like receptor subfamily B member 1, also known as CLEC5B and NKR-P1A) is a type II transmembrane protein that is expressed on the majority of Natural Killer (NK) cells, NK T cells, and some T lymphocytes (1). CD161/KLRB1 is also expressed on Th17 cells, promotes their generation, and modulates their function (2). Engagement with its ligand lectin-like transcript 1 (LLT1) inhibits NK cell function, while LLT1 and CD161/KLRB1 interaction in the presence of a TCR signal enhances IFN-gamma production by T cells (3,4). There are several different CD161 isoforms in rodents and some function as activating receptors as well (5,6).

There is a family of Klrp1 genes in rodents (7). PK136 antibody recognizes a specific epitope on mouse KLRB1b/c, also referred to as NK1.1, and is commonly used for detection of mouse NK cells in certain mouse strains (CE, B6, NZB, C58, Ma/My, ST, SJL, FVB). However, the epitope is absent in other mouse strains (BALB/c, AKR, CBA, C3H, DBA, 129) (8).

Background References

1. Lanier, L.L. et al. (1994) *J Immunol* 153, 2417-28.
2. Bai, A. et al. (2014) *J Immunol* 193, 3366-77.
3. Aldemir, H. et al. (2005) *J Immunol* 175, 7791-5.
4. Rosen, D.B. et al. (2005) *J Immunol* 175, 7796-9.
5. Carlyle, J.R. et al. (2006) *J Immunol* 176, 7511-24.
6. Kirkham, C.L. and Carlyle, J.R. (2014) *Front Immunol* 5, 214.
7. Kirkham, C.L. and Carlyle, J.R. (2014) *Front Immunol* 5, 214.
8. Carlyle, J.R. et al. (2006) *J Immunol* 176, 7511-24.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Applications Key

FC-FP: Flow Cytometry (Fixed/Permeabilized) **FC-L:** Flow Cytometry (Live)

Cross-Reactivity Key

M: Mouse

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