APC Mouse Anti-Mouse NK-1.1

Product Information
Material Number: 550627
Alternate Name: NKR-P1B and NKR-P1C
Size: 0.1 mg
Concentration: 0.2 mg/ml
Clone: PK136
Immunogen: Mouse NK-1+ Spleen and Bone Marrow Cells
Isotype: Mouse (C3H x BALB/c) IgG2a, κ
Reactivity: QC Testing: Mouse
Storage Buffer: Aqueous buffered solution containing ≤0.09% sodium azide.

Description
In the mouse, at least three members of the Klrb (Killer cell lectin-like receptor, subfamily b; formerly NKR-P1) gene family have been identified (Klrblα/NKR-P1A, Klrblb/NKR-P1B, and Klrblc/NKR-P1C); but in the human gene family, a single homologue has been designated KLRB1, NKR-P1A, or CD161. The KLRB1/NKR-P1 family of proteins are type-II-transmembrane C-type lectin receptors. KLRB1C/NKR-P1C activates NK-cell cytotoxicity, while KLRB1B/NKR-P1B functions as an inhibitory receptor. KLRB1B/NKR-P1B protein has intracellular Immunoreceptor Tyrosine-based Inhibitory Motif (ITIM), while KLRB1C/NKR-P1C lacks ITIM and activates via association with Fc Receptor γ chain. Strikingly, KLRB1C/NKR-P1B and KLRB1C/NKR-P1C share 96% amino acid sequence identity in their extracellular C-type lectin domains. The PK136 antibody reacts with the NK-1.1 surface antigen encoded by the Klrblc/NKR-P1C gene expressed on natural killer (NK) cells in selected strains of mice (eg, C57BL, FVB/N, NZB, but not A, AKR, BALB/c, CBA/J, C3H, C57BR, C58, DBA/1, DBA/2, NOD, SJL, 129) and the antigen encoded by the Klrblb/NKR-P1B gene expressed only on Swiss NIH and SJL mice, but not on C57BL/6. Expression of KLRB1C/NKR-P1C protein is correlated with the ability to lyse tumor cells in vitro and to mediate rejection of bone marrow allografts. The NK-1.1 marker is useful in defining NK cells; however, the antigen is also expressed on a rare, specialized population of T lymphocytes (NK-T cells) and some cultured monocytes. Plate-bound PK136 mAb, in combination with low concentrations of IL-2, induces proliferation of a subset of NK cells.

Preparation and Storage
The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography. The antibody was conjugated to APC under optimum conditions, and unconjugated antibody and free APC were removed. Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

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Application Notes

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Suggested Companion Products

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<th>Clone</th>
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<tr>
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<td>FITC Hamster Anti-Mouse CD3e</td>
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<td>550882</td>
<td>APC Mouse IgG2a x Isotype Control</td>
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Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
3. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at www.bdbiosciences.com/colors.
4. 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


Lanier LL. Natural killer cells: from no receptors to too many. Immunity. 1997; 6(4):371-378. (Biology)

Reichlin A, Yokoyama WM. Natural killer cell proliferation induced by anti-NK1.1 and IL-2. Immunol Cell Biol . 1998; 76(2):143-152. (Clone-specific: Induction)


Vicari AP, Zlotnik A. Mouse NK1.1+ T cells: a new family of T cells. Immunol Today. 1996; 17(2):71-76. (Biology)
