

Technical Data Sheet

Purified NA/LE Mouse Anti-Mouse NK-1.1

Product Information

Material Number:	553161
Alternate Name:	Klrblb, CD161b, Nkrp1b; Klrblc, CD161c, NK1.1, Nkrp1c
Size:	0.5 mg
Concentration:	1.0 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:	No azide/low endotoxin: Aqueous buffered solution containing protein stabilizer, no preservative, 0.2 μ m sterile filtered. Endotoxin level is ≤ 0.01 EU/ μ g (≤ 0.001 ng/ μ g) of protein as determined by the LAL assay.

Description

In the mouse, at least three members of the *Klrbl* (Killer cell lectin-like receptor, subfamily *b*; formerly *NKR-P1*) gene family have been identified (*Klrbl1a/NKR-P1A*, *Klrbl1b/NKR-P1B*, and *Klrbl1c/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, KLRB1B/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 (CD161c) encoded by the *Klrbl1c/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 CD161b antigen encoded by the *Klrbl1b/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

Store undiluted at 4°C.

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

This preparation contains no preservatives, thus it should be handled under aseptic conditions.

Application Notes

Application

Flow cytometry	Routinely Tested
Cytotoxicity	Reported
Depletion	Reported
Blocking	Reported
Immunoprecipitation	Reported
Induction	Reported
Mediation	Reported
(Co)-stimulation	Reported
Immunohistochemistry-frozen	Not Recommended
Immunohistochemistry-paraffin	Not Recommended

Suggested Companion Products

Catalog Number	Name	Size	Clone
553453	Purified NA/LE Mouse IgG2a, κ Isotype Control	0.5 mg	G155-178
555988	FITC Goat Anti-Mouse IgG/IgM	0.5 mg	Polyclonal

Product Notices

- Since applications vary, each investigator should titrate the reagent to obtain optimal results.
- Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

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