

## Anti-NK1.1 [PK-136] VivopureX 1 mg Ab02764-2.0-VXS

This chimeric mouse antibody was made using the variable domain sequences of the original format for improved compatibility with existing reagents assays and techniques.

**Isotype and Format:** Mouse IgG2a, Kappa

**Clone Number:** PK-136

**Alternative Name(s) of Target:** CD161c; Killer cell lectin-like receptor subfamily B member 1C; CD161 antigen-like family member C; Lymphocyte antigen 55c; Ly-55c; NK1.1; NKR-P1.9; NKR-P1C; Natural killer cell surface protein P1-40; NKR-P1 40; PK136

**UniProt Accession Number of Target Protein:** P27814

**Published Application(s):** FACS, in vivo NK cell depletion, FC

**Published Species Reactivity:** Mouse

**Immunogen:** The original antibody was generated by immunizing (C3H X BALB)F1 mice with spleen cells enriched for NK-1 cells and bone marrow cells from CE mice.

**Specificity:** The antibody reacts with murine NK1.1. NK1.1 is a type II integral membrane glycoprotein with a C-type lectin domain. NK1.1 plays a stimulatory role on natural killer (NK) cells cytotoxicity. Its activation by cross-linking of the receptor induces Ca<sup>2+</sup> mobilization and interferon-gamma production.

**Application Notes:** The antibody was employed for FACS analysis of CD4+8- thymocytes (Arase et al., 1993; PMID: 8419184). The antibody was used for detection of NK1.1 of spleen cells by flow cytometry (Christianson et al., 1996; PMID: 8806787). The antibody was further used for the detection of NK1.1 by flow cytometry analysis (Arase et al., 1992; PMID: 1378629 and Lee et al., 2018; PMID: 30333822 and Coquet et al., 2008; PMID: 18685112). The antibody was employed for in vivo studies, the efficacy of the antibody in depleting the animals of NK1.1+ or NK T cells was ascertained by flow cytometric analysis. The reduction was greater than 90% after 1 week of treatment (Nomizo et al., 2005; PMID: 16162272). Finally, the antibody was used for the depletion of NK1.1+ cells in euthymic and thymectomized young C57Bl/6 mice infected with T. cruzi. The depletion of NK1.1 cells caused an increase in the parasitemia in young euthymic mice, but produced no such effects in thymectomized young mice infected with T. cruzi (Tulahuen strain) (Cardillo et al., 2002; PMID: 11841697). The original hybridoma expressed two light chain transcripts, which are both present in the final antibody protein, with only one showing full functionality, with the other light chain potentially mediating off-target binding. This recombinant antibody only features the fully functional light chain, improving antibody performance and on-target specificity.

**Antibody First Published in:** Koo et al. Establishment of monoclonal anti-Nk-1.1 antibody Hybridoma .

Fall 1984;3(3):301-3. [PMID:6500587](#)

**Note on publication:** The original paper describes the generation and characterization of the original antibody

## Product Form

**Size:** 1 mg VivopureX products are produced at high purity (>98%), low endotoxin (<0.5 EU/mg) and are formulated without preservatives. These antibodies are chimerized to have an Fc domain matching their target species to reduce immunogenicity and give you the optimal effector function for your experiment. As a result VivopureX products are the ideal choice for in vivo research applications.

**Purification:** Protein A affinity purified

**Supplied In:** PBS only.

**Storage Recommendation:** All VivopureX products are formulated in PBS only without addition of preservatives. To ensure optimal storage and prevent microbial contamination, only open and dispense under sterile conditions. Store at 4°C for up to 3 months. For longer storage, aliquot and store at -20°C.

**Concentration:** ≥1mg (see vial label for exact conc)

Important note – This product is for research use only. It is not intended for use in therapeutic or diagnostic procedures for humans or animals.