Anti-Mouse NK1.1 (CD161), Clone PK136, FITC

Antibodies

Mouse monoclonal IgG2a antibody against mouse NK1.1 (CD161), FITC-

conjugated

Catalog #60103FI #60103FI.1 500 μg 0.5 mg/mL 50 μg 0.5 mg/mL



Scientists Helping Scientists™ | www.stemcell.com

TOLL FREE PHONE 1 800 667 0322 • PHONE +1 604 877 0713 INFO@STEMCELL.COM • TECHSUPPORT@STEMCELL.COM FOR GLOBAL CONTACT DETAILS VISIT OUR WEBSITE

FOR RESEARCH USE ONLY, NOT INTENDED FOR HUMAN OR ANIMAL DIAGNOSTIC OR THERAPEUTIC USES

Product Description

The PK136 antibody reacts with murine NK1.1 (CD161), an \sim 80 kDa homodimeric type 2 transmembrane glycoprotein and C-type lectin receptor expressed on NK cells, NK-T cells and rare subsets of T cells and monocytes in select strains of mice. NK1.1 is encoded by the Klrb1b and Klrb1c genes, which specify CD161b and CD161c polypeptides, respectively. CD161b is expressed only by Swiss NIH and SJL mice, and CD161c by certain strains such as C57BL, FVB/N and NZB (but not A, AKR, BALB/c, CBA/J, C3H, C57BR, C58, DBA/1, DBA/2, NOD, SJL or 129). NK1.1 has functional roles in modulating several processes, including the activation and proliferation of NK cells, induction of interferon- γ production, and release of cytotoxic granules. Its expression on the cell surface is specifically upregulated by IL-12. For detection of NK cells in NK1.1- strains the antibody clone DX5 is recommended (Catalog #60020). DX5 recognizes CD49b (integrin α 2), another commonly employed NK cell marker.

Target Antigen Name: NK1.1 (CD161)

Alternative Names: CD161b, CD161c, Klrb1b, Klrb1c, Ly-55, Ly-59, NK-1.1, NKRP1, NKRP1a, NKRP1b

Gene ID: 17059

Species Reactivity: Mouse (strain-specific)
Host Species: Mouse (BALB/c)
Clonality: Monoclonal
Clone: PK 136

Isotype: IgG2a, kappa

Immunogen: NK-1+ cells from mouse spleen and bone marrow

Conjugate: FITC

Applications

Verified: FC

Reported: FC, IF, IHC

Special Applications: This antibody clone has been verified for purity assessments of cells isolated from NK1.1+ mouse strains

such as C57BL/6, FVB/N, NZB, Swiss NIH, and SJL with EasySep™ kits, including EasySep™ Mouse NK Cell

Enrichment Kit (Catalog #19755) and EasySep™ Mouse NK Cell Isolation Kit (Catalog #19855).

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FC: Flow cytometry; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IP: Immunoprecipitation; WB: Western blotting

Properties

Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide

Purification: The antibody was purified by affinity chromatography and conjugated with FITC under optimal conditions. The

solution is free of unconjugated FITC.

Stability and Storage: Product stable at 2 - 8°C when stored undiluted. Do not freeze. Protect product from prolonged exposure to

light. For product expiry date, please contact techsupport@stemcell.com.

Directions for Use: For flow cytometry the suggested use of this antibody is ≤ 0.25 µg per 1 x 10e6 cells in 100 µL volume. It is

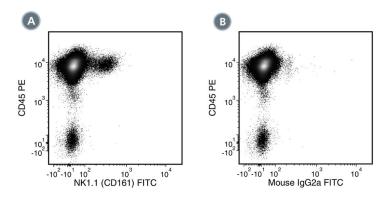
recommended that the antibody be titrated for optimal performance for each application.

Anti-Mouse NK1.1 (CD161), Clone PK136, FITC

Antibodies



Data



- (A) Flow cytometry analysis of C57BL/6 mouse splenocytes (gated on lymphocytes) labeled with Anti-Mouse NK1.1 (CD161) Antibody, Clone PK136, FITC and Anti-Mouse CD45 Antibody, Clone 30-F11, PE (Catalog #60030PE).
- (B) Flow cytometry analysis of C57BL/6 mouse splenocytes (gated on lymphocytes) labeled with a mouse IgG2a, kappa isotype control antibody, FITC and Anti-Mouse CD45 Antibody, Clone 30-F11, PE.

Related Products

For a complete list of antibodies, including other conjugates, sizes and clones, as well as related products available from STEMCELL Technologies, please visit our website at www.stemcell.com/antibodies or contact us at techsupport@stemcell.com.

References

- 1. Reichlin A, Yokoyama WM. Natural killer cell proliferation induced by anti-NK1.1 and IL-2. Immunol Cell Biol 76(2): 143-52, 1998 (FA/Stimulation, FC)
- 2. Kung SKP, et al. The NKR-P1B gene product is an inhibitory receptor on SJL/J NK cells. J Immunol 162(10): 5876-87, 1999 (FA, FC, IP)
- 3. Carlyle JR, et al. Mouse NKR-P1B, a novel NK1.1 antigen with inhibitory function. J Immunol 162(10): 5917-23, 1999 (FA, FC, IP)
- 4. Kanwar JR, et al. Effects of survivin antagonists on growth of established tumors and B7-1 immunogene therapy. J Natl Cancer Inst 93(20): 1542-52, 2001 (Depletion, IHC, IF)
- 5. Kitaichi N, et al. Diminution of experimental autoimmune uveoretinitis (EAU) in mice depleted of NK cells. J Leukoc Biol 72(6): 1117-21, 2002 (Depletion)
- 6. Carnemolla B, et al. Enhancement of the antitumor properties of interleukin-2 by its targeted delivery to the tumor blood vessel extracellular matrix. Blood 99(5): 1659-65, 2002 (IHC)
- 7. Kulesza J, et al. NK cell depletion and recovery in SCID mice treated with anti-NK1.1 antibody. Folia Histochem Cyto 44(2): 93-96, 2006 (Depletion)
- 8. Xie X, et al. MHC class I D(k) expression in hematopoietic and nonhematopoietic cells confers natural killer cell resistance to murine cytomegalovirus. Proc Natl Acad Sci USA 107(19): 8754-59, 2010 (Depletion, FA/Stimulation, FC)
- 9. McAllister CS, et al. TLR3, TRIF and Caspase 8 determine double-stranded RNA-induced epithelial cell death and surivival in vivo. J Immunol 190(1): 418-27, 2013 (Depletion, IHC)

STEMCELL TECHNOLOGIES INC.'S QUALITY MANAGEMENT SYSTEM IS CERTIFIED TO ISO 13485 MEDICAL DEVICE STANDARDS

Copyright © 2014 by STEMCELL Technologies Inc. All rights reserved including graphics and images. STEMCELL Technologies & Design, STEMCELL Shield Design, Scientists Helping Scientists, STEMdiff and NeuroCult are trademarks of STEMCELL Technologies Inc. All other trademarks are the property of their respective holders. Alexa Fluor® is a registered trademark of Life Technologies Corporation. This product is licensed for internal research use only and its sale is expressly conditioned on the buyer not using it for manufacturing, performing a service, or medical test, or otherwise generating revenue. For use other than research, contact Life Technologies Corporation, 5791 Van Allen Way, Carlsbad, CA 92008 USA or outlicensing@lifetech.com. While STEMCELL has made all reasonable efforts to ensure that the information provided by STEMCELL and its suppliers is correct, it makes no warranties or representations as to the accuracy or completeness of such information.