IOTest CD94-APC

PN B09980 – 0.5 mL – Liquid – 10 µL/test – Clone HP-3B1

Analyte Specific Reagent.
Analytical and performance characteristics are not established.

SPECIFICITY

CD94 is a type II transmembrane glycoprotein of 30kDa, belonging to the CA^{++}-dependent (C-type) lectin family.
Like NGKG2A (or Kp43) on human natural killer (NK) cells, CD94 associates with one member of the NKG2 family to form disulphide-linked, NK cell receptor for MHC class I molecules, with a broader specificity than the human killer cell inhibitory (KIR)/activator (KAR) receptors of the Ig-superfamily. Ligation of CD94 either potently triggers or inhibits NK cell proliferation and cell-mediated cytotoxicity. Recent studies strongly indicate that the specificity of CD94/NKG2 receptors is for HLA-E, a non-classical MHC class I molecule.
CD94/NKG2A and CD94/NKG2B heterodimers constitute inhibitory NK cell receptors, whereas association of CD94 with NKG2C corresponds to an activating receptor.
The expression of CD94 appears restricted to most NK cells and to a T lymphocyte subpopulation (1, 2), including a subset of γ/δ TCR^+ T-cells, and α/β TCR^+ $CD8^+$ $CD56^+$ T-cells, mainly $V\alpha2$ / $V\delta2$ (3).
Ligation of CD94 with the HP-3B1 monoclonal antibody (mAb) inhibits IL-2-dependent proliferation of NK cells, and induces apoptosis in a subset of IL-2-stimulated NK cells.

The HP-3B1 mAb has been assigned to the CD94 cluster of differentiation at the fifth International Workshop on Human Leucocyte Differentiation Antigens held in Boston, USA, in 1993 (4).

REAGENT

IOTest CD94-APC
Conjugated antibody
PN B09980 - 0.5 mL - Liquid - 10 µL/test

Clone	HP-3B1
Isotype	IgG2a, Mouse
Immunogen	Cultured Human NK-cells
Hybridoma	X63 x balb/c
Source	Ascites fluid or supernatant of in vitro cultured hybridoma cells.
Purification	Affinity chromatography
Conjugation	Allophycocyanin (APC)
Molar Ratio	APC / Ig : 0.5 - 1.5
Fluorescence	Excites at 633/638 nm Emits at 660 nm

REAGENT CONTENTS

This antibody is provided in phosphate-buffered saline, containing 0.1% sodium azide and 2 mg/mL bovine serum albumin.

STATEMENTS OF WARNING

1. This reagent contains 0.1% sodium azide. Sodium azide under acid conditions yields hydrazoic acid, an extremely toxic compound. Azide compounds should be flushed with running water while being discarded. These precautions are recommended to avoid deposits in metal piping in which explosive conditions can develop. If skin or eye contact occurs, wash excessively with water.
2. Specimens, samples and all material coming in contact with them should be considered potentially infectious and disposed of with proper precautions.
3. Never pipet by mouth and avoid contact of samples with skin and mucous membranes.
4. Do not use antibody beyond the expiration date on the label.
5. Do not expose reagents to strong light during storage or incubation.
6. Avoid microbial contamination of reagents or incorrect results might occur.
7. Use good laboratory practices when handling this reagent.

STORAGE AND HANDLING CONDITIONS AND STABILITY

This reagent is stable up to the expiration date when stored at 2 – 8°C. Do not freeze. No reconstitution is necessary. This monoclonal antibody may be used directly from the vial. Bring reagent to 18 – 25°C prior to use.

SELECTED RESEARCH REFERENCES

1. Aramburu, J., Balboa, M.A., Ramirez, A., Silva, A., Acevedo, A., Sanchez-Madrid, F., De Landazuri, M.O., Lopez-Botet, M., "A novel functional cell surface dimer (Kp43) expressed by natural killer cells and T cell receptor-γ/δ^+ T lymphocytes. I. Inhibition of the IL-2-dependent proliferation by anti-Kp43 monoclonal antibody", 1990, J. Immunol., 144, 3238-3247.
2. Aramburu, J., Balboa, M.A., Izquierdo, M., Lopez-Botet, M., "A novel functional cell surface dimer (Kp43) expressed by natural killer cells and T cell receptor-γ/δ^+ T lymphocytes. II. Modulation of natural killer cytotoxicity by anti-Kp43 monoclonal antibody", 1991, J. Immunol., 147, 714-721.
3. Acevedo, A., Aramburu, J., Lopez, J., Fernandez-Herrera, J., Fernandez-Ranada, J.M., Lopez-Botet- M., "Identification of natural killer (NK) cells in lesions of human cutaneous graft-versus-host disease: Expression of a novel NK-associated surface antigen (Kp43) in mononuclear infiltrates", 1991, J. Invest. Dermatol., 97, 659-666.
4. Villar, J.J., Melero, I., Aramburu, J., Lopez-Botet, M., "Dual functional effects mediated by mAbs specific for an NK-cell-associated surface dimer (Kp43)"; 1995, in Leucocyte Typing V, Schlossman, S.F., et al., Eds., 1419-1421.

TRADEMARKS

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