PN IM2748 Monoclonal Antibody KIR p70

Form	Unconjugated	**Clone**	Z27 (Z27.3.7)
Quantity	0.2 mg	**Isotype**	IgG1
Presentation	Freeze-dried	**Species**	Mouse

For Research Use Only. Not For Use In Diagnostic Procedures.

SELECTED RESEARCH REFERENCES

1. [4859] Moretta, A., Biassoni, R., Bottino, C., Pende, D., Vitale, M., Poggi, A., Mingari, M.C., Moretta, L., "Major histocompatibility complex class I-specific receptors on human natural killer and T-lymphocytes", 1997, Immunol. Rev., 155, 105-117.
2. [4858] Yokoyama, W.M., "Natural Killer cell receptors", 1998, Curr. Opin. Immunol., 10, 298-305.
3. [3305] Vitale, M., Sivori, S., Pende, D., Augugliaro, R., Di Donato, C., Amoroso, A., Malnati, M., Bottino, C., Moretta, L., Moretta, A., "Physical and functional independency of p70 and p58 natural killer (NK) cell receptors for HLA class I: Their role in the definition of different groups of alloreactive NK cell clones", 1996, Proc. Natl. Acad. Sci. USA, 4, 93, 1453-1457.
4. [3439] Mingari, M.C., Ponte, M., Cantoni, C., Vitale, C., Schiavetti, F., Bertone, S., Bellomo, R., Cappai, A.T., Biassoni, R., "HLA-class I-specific inhibitory receptors in human cytolytic T lymphocytes: Molecular characterization, distribution in lymphoid tissues and co-expression by individual T cells", 1997, Int. Immunol., 4, 9, 485-491.
5. [5029] Uhrberg, M., Valiante, N.M., Shum, B.P., Shilling, H.G., Lienert-Weidenbach, K., Corliss, B., Tyan, B., Lanier, L.L., Parham, P., "Human diversity in killer cell inhibitory receptor genes", 1997, Immunity, 6, 7, 753-763.
6. [3241] Pende, D., Biassoni, R., Cantoni, C., Verdiani, S., Falco, M., Di Donato, C., Accame, L., Bottino, C. Moretta, A., Moretta, L., "The natural killer cell receptor specific for HLA-A allotypes: A novel member of the p58 / p70 family of inhibitory receptors that is characterized by three immunoglobulin-like domains and is expressed as a 140-kD disulphide-linked dimer", 1996, J. Exp. Med., 184, 505-518.
7. Internal data.

(*): See SUGGESTED PROCEDURE for tested application(s)
For other application(s), see the corresponding reference(s).

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SPECIFICITY

The p70/NKB1 molecule is a monomeric type I 70 kDa integral membrane glycoprotein (1, 2). p70 belongs to the subfamily of human Killer Inhibitory Receptors (KIRs) of the NK cell receptors for MHC class I molecules, and shares a high degree of homology with p58 and p140 KIRs. p70 is a member of the Ig superfamily, comprising three C-type Ig-like domains in its extracellular domain, and two characteristic "Immunoreceptor Tyrosine based Inhibition Motifs" (ITIM)in its intracellular domain. The latter is involved in the transduction of the inhibitory signal. p70 functions as an inhibitory receptor for HLA-B molecules of the Bw4 supertype. In peripheral blood, p70 is expressed by a subset of NK cells (3), and by a small subset of T cells, mostly of the $CD8^+$ phenotype (4). Evidence that the KIR locus is polygenic and polymorphic has been demonstrated recently, showing that the KIR gene occurence varies (5).

The Z27 monoclonal antibody (mAb) immunoprecipitates specifically the p70 protein (3). In cytotoxicity assays, this antibody restores the ability of $p70^+$ NK clones to lyse HLA-Bw4-protected target cells (3, 6). In flow cytometry analysis, the Z27 mAb reacts with the peripheral blood NK cells and T cells from some donors only (7).

REAGENT

Anti – KIR p70 unconjugated monoclonal antibody
PN IM2748 – 0.2 mg freeze-dried – 10 µL / test*

CLONE
Z27 (Z27.3.7)

HYBRIDOMA
P3U1 x Balb/c

IMMUNOGEN
Bw4-specific NK cell clone SA260

Ig CHAIN
IgG1

SPECIES
Mouse

SOURCE
Ascites fluid

PURIFICATION
Ion exchange or affinity chromatography

(*): See SUGGESTED PROCEDURE for tested application(s)
For other application(s), see the corresponding reference(s).

POTENTIAL APLICATIONS*

Flow cytometry
Immunoprecipitation (3)
Cytotoxicity assays (3, 7)

BUFFER

1 mg/mL bovine serum albumin in phosphate-buffered saline.

STORAGE CONDITIONS AND STABILITY

This freeze-dried form may be stored at 2 – 8°C until the expiration date stated on the vial label.
No preservative has been added.

REAGENT PREPARATION

Depending of usage, reconstitute with 1 mL of distilled water, with or without 0.1% sodium azide (w/v).
The reconstituted form including 0.1% sodium azide may be stored for up to one month at 2 – 8°C.
The reconstituted form without sodium azide can be stored at –20°C or less, until the expiration date stated on the vial label.
In this case, aliquotting is recommended to avoid multiple freezing / thawing cycles.

SUGGESTED PROCEDURE

Flow cytometry.
Use 10 µL of the reconstituted purified antibody per 5×10^5 cells per test, or per 100 µL whole blood.

STATEMENT OF WARNINGS

1. Specimens, samples and all material coming in contact with them should be handled as if capable of transmitting infection and disposed of with proper precautions.
2. Never pipet by mouth and avoid contact of samples with skin and mucous membranes.
3. Do not use reagent beyond the expiration date on the vial label.
4. Avoid microbial contamination of reconstituted reagent or erroneous results may occur.
5. Use Good Laboratory Practices (GLP) when handling this reagent.

2748EX261199 Vers.1/ 26/11/99 AC-991310

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