

**PN IM3452 PRR2-PE**

**(R2.477.1)**

**100 tests  
20 µL/test**



**IO Test®**  
Conjugated Antibodies

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

**SPECIFICITY**

The poliovirus receptor (PVR/CD155), the PRR1 (Poliovirus Receptor Related 1), and the PRR2 (Poliovirus Receptor Related 2) define a new family of human antigens belonging to the immunoglobulin (Ig) superfamily. Among the three proteins, CD155 and PRR2 are more closely related (1). The PRR2 gene encodes two glycoproteins, PRR2α (short form) and PRR2δ (long form) resulting from alternative splicing.

The PRR2 antigen is an integral membrane protein composed by three Ig-like extracellular domains: one V-type domain proximal to the cell membrane, and two C2-type domains distal to the cell membrane.

On peripheral whole blood, the PRR2 molecule is mainly expressed at the surface of the myelomonocytic and megakaryocytic lineages, and on a subset of CD19 positive lymphocytes (2). Its expression is practically absent on erythrocytes (Glycophorin A positive cells). The molecule is also detected on the membrane of endothelial cells (2).

Among the CD34 positive cells from bone marrow, the PRR2 molecule is expressed in the majority of the CD33 and CD14 subpopulation, and on a subset of CD41 subpopulation, (2, 3). Like the CD155, the PRR2 molecule may interact with the CD44 on monocytes (4).

Both isoforms of the PRR2 could mediate homophilic intercellular adhesion (2).

The R2.477.1 monoclonal antibody was studied during the 6th International Workshop on Human Leucocytes Differentiation Antigen held in Kobe, Japan, in 1996 (WS Code: MA39, Section M). It has not been assigned to a novel cluster of differentiation due to its uniqueness (5).

**REAGENT**

**Clone** R2.477.1  
**isotype** IgG1 (Kappa), mouse  
**Immunogen** TF1 Cell Line  
**Hybridoma** X63 x Balb/c  
**Source** Ascites fluid  
**Purification** Ion exchange or affinity chromatography  
**Conjugation** R-phycoerythrin (PE) is conjugated at 0.5 - 1.5 moles of PE per mole of Ig.  
Excitation wavelength: 488 nm  
Maximum emission wavelength: 575 nm  
Main emission color: Orange-red  
**Buffer** 2 mg/mL bovine serum albumin in phosphate-buffered saline containing 0.1% sodium azide.

**APPLICATION**

Flow cytometry studies:  
Research Studies of Poliovirus Receptor and associated molecules.  
Research studies of hematopoiesis, and hematopoietic progenitor cells.

**STATEMENT OF WARNINGS**

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 handled as if capable of transmitting infection 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.

**STORAGE CONDITIONS AND STABILITY**

Each reagent is stable up to the expiration date when stored at 2 - 8°C. Do not freeze. Minimize exposure to light.

**REAGENT PREPARATION**

No reconstitution is necessary. This monoclonal antibody may be used directly from the vial. Bring reagent to 20 - 25°C prior to use.

**PROCEDURE**

This reagent is designed for flow cytometry.

Assay volume: 20 µL per 5 x 10<sup>5</sup> cells in one test, or per 100 µL whole blood.

A wash is required to yield optimal results.

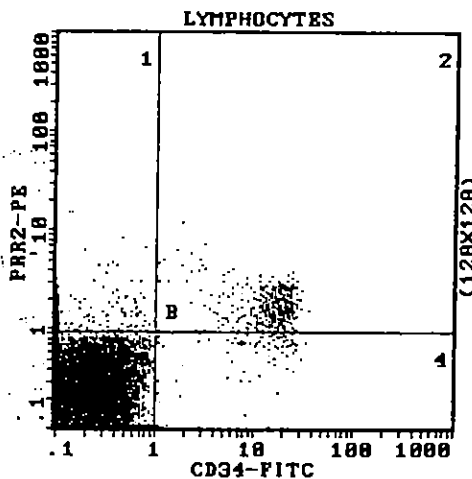
**EXAMPLE DATA**

The diagrams below are biparametric representations (Fluorescence Intensity versus Fluorescence Intensity) of an apheresis sample. Staining is with PRR2-PE monoclonal antibody (PN IM3452) and CD34-FITC (PN IM1870). Gate is on lymphocytes. The isotypic control labeling is not shown.

**Figure 1:**

Acquisition is with a COULTER® EPICS® XL™ flow cytometer. Analysis is with the XL System II™ software.

2: A



**BON A TIRER**

18 JAN. 2000

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N° CONTROLE DE CHANGEMENT: AC-991355  
SIGNATURE:

1/2



PARTNERS IN CELL ANALYSIS



**IMMUNOTECH**  
A COULTER COMPANY

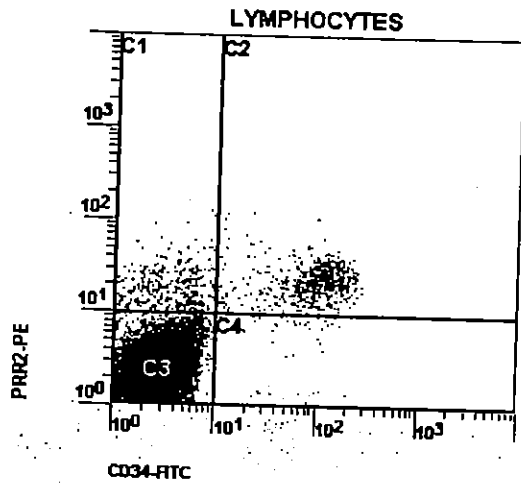
**PN IM3452 PRR2-PE**  
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**Figure 2 :**

Acquisition is with a Becton Dickinson FACSCalibur™ flow cytometer equipped with CellQuest™ software. Analysis is with EXPO™ v2.0 Analysis software (Coulter PN 6605433).



**SELECTED RESEARCH REFERENCES**

1. [5446] Eberlé, F., Dubreuil, P., Mattei, M-G., Devillard, E., Lopez, M. "The human PRR2 gene, related to the human poliovirus receptor gene (PVR), is the true homolog of the murine MPH gene" 1995, *Gene*, 159, 267-272.
2. [5443] Lopez, M., Aoubala, M., Jordier, F., Isnardon, D., Gomez, S., Dubreuil, P. "The human poliovirus receptor related 2 protein is a new hematopoietic/endothelial homophilic adhesion molecule" 1998, 92, 4602-4611.
3. [5444] Lopez, M., Jordier, F., Bardin, F., Coulombel, L., Chabannon, C., Dubreuil, P. "CD155 Workshop: Identification of a new class of Ig superfamily antigens expressed in hemopoiesis" 1997, 1081-1083.
4. [5448] Freistadt, M.S., Eberle, K.E. "Physical association between CD155 and CD44 in human monocytes" 1997, 34, 1247-1257.
5. [5449] Freistadt, M.S., Eberle, K.E. "CD155 (poliovirus receptor) Workshop panel report" 1997 *Leucocyte Typing VI, White Cell Differentiation Antigens*. Kishimoto, T., et al, Eds., Garland Publishing, Inc., 1075-1080.