

## TECHNICAL DATA SHEET

### CyFlow™ CD79a APC Anti-Hu/Ms/Rt; Clone HM57

**REF** AJ298129

**For Research Use Only.**  
**Not for use in diagnostic or therapeutic procedures.**

### Specifications

|                                    |                                                                                  |
|------------------------------------|----------------------------------------------------------------------------------|
| <b>Antigen</b>                     | CD79a                                                                            |
| <b>Alternative Names</b>           | IgA, MB-1, MB1                                                                   |
| <b>Clone</b>                       | HM57                                                                             |
| <b>Clonality</b>                   | monoclonal                                                                       |
| <b>Format</b>                      | APC                                                                              |
| <b>Host / Isotype</b>              | Mouse / IgG1                                                                     |
| <b>Species Reactivity</b>          | Human   Mouse   Rat, Pig   Cow   Horse   Rabbit   Guinea pig   Opossum   Chicken |
| <b>Negative Species Reactivity</b> | —                                                                                |
| <b>Quantity</b>                    | 100 tests                                                                        |
| <b>Immunogen</b>                   | Synthetic peptide corresponding to amino acids 202-216 of human CD79a            |

### Specificity

The mouse monoclonal antibody HM57 recognizes CD79a, a 40-45 kDa subunit of B cell antigen-specific receptor (BCR) and its early developmental forms.

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## Application

The reagent is designed for Flow Cytometry analysis of human blood cells. Recommended usage is 10 µl reagent / 100 µl of whole blood or 10<sup>6</sup> cells in a suspension. The content of a vial (1 ml) is sufficient for 100 tests.

Other usages may be determined from the scientific literature.

## Storage Buffer

The reagent is provided in stabilizing phosphate buffered saline (PBS) solution, pH ≈7.4, containing 0.1% (w/v) sodium azide.

## Storage and Stability

|                  |                                                                               |
|------------------|-------------------------------------------------------------------------------|
| <b>Storage</b>   | Avoid prolonged exposure to light. Store in the dark at 2-8°C. Do not freeze. |
| <b>Stability</b> | Do not use after expiration date stamped on vial label.                       |

## Background Information

CD79a (Ig α, MB1) forms disulfide-linked heterodimer with CD79b (Ig β, B29). They both are transmembrane proteins with extended cytoplasmic domains containing immunoreceptor tyrosine activation motives (ITAMs), and together with cell surface immunoglobulin they constitute B-cell antigen-specific receptor (BCR). CD79a and b are the first components of BCR that are expressed developmentally. They appear on pro-B cells in association with the endoplasmic reticulum chaperone calnexin. Subsequently, in pre-B cells, CD79 heterodimer is associated with λ5-VpreB surrogate immunoglobulin and later with antigen-specific surface immunoglobulins. At the plasma cell stage, CD79a is present as an intracellular component. CD79a/b complex interacts with Src-family tyrosine kinase Lyn, which phosphorylates its cytoplasmic ITAM motives to form docking sites for downstream signaling.

## References

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The Safety Data Sheet for this product is available at [www.sysmex-partec.com/services](http://www.sysmex-partec.com/services).

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