

## TECHNICAL DATA SHEET

### CyFlow™ CD79a Purified Anti-Hu/Ms/Rt; Clone HM47

**REF** CM881146

**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>	HM47
<b>Clonality</b>	monoclonal
<b>Format</b>	Purified
<b>Host / Isotype</b>	Mouse / IgG1
<b>Species Reactivity</b>	Human   Mouse   Rat, Non-Human Primates   Pig   Cow   Horse   Dog   Rabbit   Guinea pig   Chicken
<b>Negative Species Reactivity</b>	—
<b>Quantity [Concentration]</b>	0.1 mg [ 1 mg/ml ]
<b>Immunogen</b>	Synthetic peptide corresponding to C terminal amino acids 208-222 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

Based on published sources, this antibody is suitable for the following applications:

- Flow cytometry
- Immunoprecipitation
- Western blot
- Immunohistochemistry (paraffin-embedded sections)

## Storage Buffer

The reagent is provided in phosphate buffered saline (PBS) solution, pH  $\approx$ 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  $\alpha$ , MB1) forms disulfide-linked heterodimer with CD79b (Ig  $\beta$ , 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  $\lambda$ 5-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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