

## TECHNICAL DATA SHEET

### CyFlow™ CD20 Purified Anti-Hu; Clone MEM-97

**REF** BW223294

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

### Specifications

|                                    |                                                |
|------------------------------------|------------------------------------------------|
| <b>Antigen</b>                     | CD20                                           |
| <b>Alternative Names</b>           | B1, Bp35                                       |
| <b>Clone</b>                       | MEM-97                                         |
| <b>Clonality</b>                   | monoclonal                                     |
| <b>Format</b>                      | Purified                                       |
| <b>Host / Isotype</b>              | Mouse / IgG1                                   |
| <b>Species Reactivity</b>          | Human, Pig   Cow                               |
| <b>Negative Species Reactivity</b> | —                                              |
| <b>Quantity [Concentration]</b>    | 0.1 mg [ 1 mg/ml ]                             |
| <b>Immunogen</b>                   | Raji cells: human Burkitt's lymphoma cell line |

### Specificity

The mouse monoclonal antibody MEM-97 recognizes CD20 antigen, a 33-37 kDa non-glycosylated membrane receptor with four transmembrane domains, expressed on B lymphocytes (it is lost on plasma cells), follicular dendritic cells, and at low levels on peripheral blood T lymphocytes.

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## Application

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

- Flow cytometry
- Immunoprecipitation

## 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

CD20 (B1, Bp35) is a cell surface 33-37 (depending on the degree of phosphorylation) kDa non-glycosylated surface phosphoprotein expressed on mature and most malignant B cells, but not stem cells or plasma cells (low number of the CD20 has been also detected on a subpopulation of T lymphocytes and it can be expressed on follicular dendritic cells). Its expression on B cells is synchronous with the expression of surface IgM. CD20 regulates transmembrane calcium conductance (probably functioning as a component of store-operated calcium channel), cell cycle progression and B-cell proliferation. It is associated with lipid rafts, but the intensity of this association depends on extracellular triggering, employing CD20 conformational change and/or BCR (B cell antigen receptor) aggregation. After the receptor ligation, BCR and CD20 colocalize and then rapidly dissociate before BCR endocytosis, whereas CD20 remains at the cell surface. CD20 serves as a useful target for antibody-mediated therapeutic depletion of B cells, as it is expressed at high levels on most B-cell malignancies, but does not become internalized or shed from the plasma membrane following mAb treatment.

## 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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