Datasheet: BUF09

<table>
<thead>
<tr>
<th>Description:</th>
<th>LEUCOPERM™</th>
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<tbody>
<tr>
<td>Name:</td>
<td>LEUCOPERM™</td>
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<tr>
<td>Format:</td>
<td>Reagent</td>
</tr>
<tr>
<td>Product Type:</td>
<td>Accessory Reagent</td>
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<tr>
<td>Quantity:</td>
<td>50 TESTS</td>
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## Product Details

**Applications**

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit [www.bio-rad-antibodies.com/protocols](http://www.bio-rad-antibodies.com/protocols).

<table>
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<tr>
<th>Application</th>
<th>Yes</th>
<th>No</th>
<th>Not Determined</th>
<th>Suggested Dilution</th>
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<tbody>
<tr>
<td>Flow Cytometry</td>
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LEUCOPERM™ reagents are intended for fixing cells in suspension with Reagent A and then permeabilising the cells with Reagent B. The specific formulations reduce background staining and allow simultaneous addition of permeabilisation medium and fluorochrome labelled antibodies.

**Product Form**

- Reagent A - Fixation medium
- Reagent B - Permeabilisation medium

**Preservative & Stabilisers**

- Formaldehyde in Reagent A

**Product Information**

Flow cytometric analyses with monoclonal antibodies have been restricted primarily to cell surface molecules. Intracellular structures such as cytoplasmic or nuclear enzymes, oncoproteins, cytokines, immunoglobulins etc. were largely excluded from such studies.

Also excluded from flow cytometric studies were cytoplasmic localisations of well established membrane molecules such as CD3 and CD22.

LEUCOPERM™ reagents allow intracellular antigen analysis with the same ease as surface antigens. The only prerequisite is the availability of suitable antibody conjugates. Most commercially available monoclonal antibody conjugates can be used with LEUCOPERM™ reagents. Some determinants are sensitive, however, to the fixation step involved. This and the optimal fixation time may have to be determined experimentally for each antibody conjugate.

**Instructions For Use**

For the detection of cell cycle antigens such as Ki-67, PCNA and BrdU, methanol modification is recommended - see protocol #F5.

1. Prepare cells in the appropriate manner. Adjust cell suspension to a concentration of \(1 \times 10^7\) cells/ml in PBS/BSA. Whole blood samples may also be used. Bio-Rad recommend the use of EDTA anti-coagulant in these circumstances, although satisfactory results may be obtained using heparin or acid-citrate dextrose.
2. Add 100μl of cell suspension to the appropriate number of test tubes. If required, perform staining of cell surface antigens at this stage. Following staining for the recommended period, wash cells once in PBS/BSA and discard supernatant.

3. Add 100μl of Reagent A (fixation medium, stored at room temperature).

4. Incubate for 15 minutes at room temperature.

5. Add 3ml PBS/BSA and centrifuge for 5 minutes at 300 x g. Remove supernatant.

6. Resuspend cells in 100μl of Reagent B (Permeabilization Medium).

7. Immediately add recommended volume of the appropriate directly conjugated antibody. Vortex and incubate for 30 minutes at room temperature. If using an unconjugated primary antibody, wash in 3ml of PBS/BSA (as per step 5) and then repeat step 7 using an appropriate secondary antibody. There is no requirement to add further Leucoperm™.

8. Wash once in PBS/BSA. Remove supernatant and resuspend cells in sheath fluid for immediate analysis or resuspend cells in 0.25ml of 0.5% formaldehyde and store them at 2-8°C in the dark. Analyse fixed cells within 24 hours.

References

10. Dishon, S. et al. (2017) Inhibition of Myeloid Differentiation Factor 88 Reduces Human and Mouse T-Cell Interleukin-17 and IFN&gamma Production and Ameliorates Experimental Autoimmune Encephalomyelitis Induced in Mice. Front Immunol. 8: 615.

Storage

LEUCOPERM™ Cell Permeabilisation reagents should be stored and used at room temperature. DO NOT FREEZE. Do not use reagents if a precipitate forms or discolouration occurs.