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1. Description

This product is for research use only.

Components	25 mL Inside Fix 100 mL Permeabilization Buffer A
Capacity	100 tests or up to 10 ⁸ total cells.
Product format	Inside Fix contains 3.7% formaldehyde and Permeabilization Buffer A contains methanol. Chill Permeabilization Buffer A to –20 °C prior to use.
Storage	Store all components protected from light at 2–8 °C. Do not freeze. The expiration date is indicated on the vial label.

1.1 Background information

The Cell Signaling Buffer Set A has been developed for use with MACS® Cell Signaling Antibodies. It enables the fixation and permeabilization of cells for intracellular detection and analysis of transcription factors and phospho-proteins such as kinases. Protein phosphorylation analysis is widely used to map the cellular signaling events that occur in response to activating or inhibiting cell stimuli. Analysis of phosphorylated proteins using flow cytometry, as compared to conventional analysis techniques, is rapid, allows for detection of target antigens in heterogeneous populations and rare cells, and is ideal for multi-parameter analysis.^{1,2} Further, by combining the specificity of phospho-epitope-specific antibodies with the sensitivity of flow cytometry, a fast quantitative evaluation of the phosphorylated state of intracellular proteins can be carried out in small sample sizes. The Cell Signaling Buffer Set A is compatible with most cell surface markers. The Cell Signaling Buffer Set A consists of Inside Fix for rapid freezing of the cellular state and Permeabilization Buffer A for efficient permeabilization of cells allowing staining of both intracellular and nuclear antigens.

1.2 Applications

- Fixation and permeabilization of cells.

For staining protocols refer to
www.miltenyibiotec.com/goto/3d76e4015cca
www.miltenyibiotec.com/goto/5d88c6ffe3ad
www.miltenyibiotec.com/goto/b5907fbb58ad

2. References

1. Krutzik, P. O. and Nolan, G. P. (2003) Intracellular phospho-protein staining techniques for flow cytometry: monitoring single cell signaling events. *Cytometry A* 55(2): 61–70.
2. Perez, O. D. and Nolan, G. P. (2002) Simultaneous measurement of multiple active kinase states using polychromatic flow cytometry. *Nat Biotechnol.* 20(2): 155–162.

Refer to www.miltenyibiotec.com for all data sheets and protocols. Miltenyi Biotec provides technical support worldwide. Visit www.miltenyibiotec.com/local to find your nearest Miltenyi Biotec contact.

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