Immunostaining Permeabilization Buffer with Saponin

Introduction

Immunostaining Permeabilization Buffer (Saponin) is suitable for various in situ detection applications, including immunostaining of cell samples, frozen sections, and paraffin-embedded sections. Its function is to expose target sites such as antigens and nucleic acids, allowing antibodies, probes, or labeling reagents to enter cells more easily, thereby ensuring effective staining and detection. This product is a ready-to-use working solution and requires no dilution.

This product has strong permeabilization capability and is recommended for permeabilizing cells in various routine applications such as immunofluorescence, immunohistochemistry, immunocytochemistry, and flow cytometry. It is particularly suitable for detecting cell membrane proteins. It does not dissolve the cell membrane nor affect light scattering in flow cytometry. However, it is not recommended for detecting proteins inside the nucleus or mitochondria.

Saponin is a specific detergent that dissolves cholesterol in the cell membrane, enabling selective permeabilization of the cell membrane. Its advantage lies in its suitability for detecting cell membrane proteins, especially for detecting cell surface marker proteins by flow cytometry. However, permeabilization may be less effective in cells with low cholesterol content, and it cannot permeabilize the nuclear membrane or mitochondrial membrane, which have very low cholesterol levels. For lectin detection, permeabilization buffers containing non-specific detergents such as Triton X-100 yield better results than buffers containing mainly Saponin.

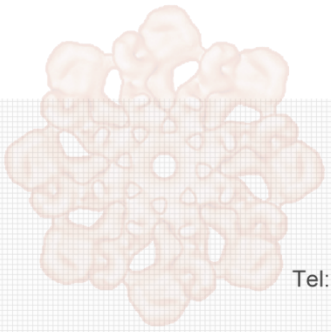
Immunostaining results for target cell membrane proteins in samples treated with this Immunostaining Permeabilization Buffer (Saponin) are generally comparable to or significantly enhanced relative to conventional permeabilization buffers.

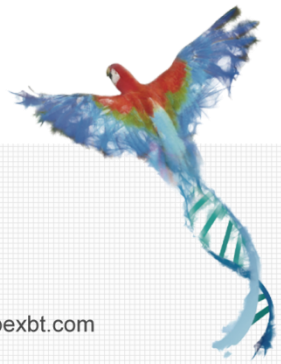
Protocol

1. For sections: After fixation and washing, add 50-100 µl of Immunostaining Permeabilization Buffer (Saponin) to each sample. Alternatively, samples can be completely submerged in a staining jar for permeabilization. For cell samples: After fixation and washing, add 1 ml of Immunostaining Permabilization Buffer (Saponin) per well (using a 6-well plate as an example; adjust proportionally for other multi-well plates). For other samples, add sufficient Immunostaining Permeabilization Buffer (Saponin) to fully cover the sample.
2. Permeabilization is typically achieved by incubating for 5-10 minutes at room temperature. For samples that are difficult to permeabilize or when exceptionally thorough permeabilization is required, extend the incubation time to 10-30 minutes.

Note

1. Primary use: Permeabilization of cell samples, frozen sections, or paraffin-embedded sections for various in situ detection applications, including immunostaining.
2. Do not store this product in a residential area. For your safety and health, wear a lab coat and disposable gloves during handling.
3. Storage and preservation conditions: Store at 4°C for one year. It can be stored long-term at -20°C. Stable for up to one month when stored at room temperature. Ship with blue ice packs.
4. This product is for research use only. Do not use it for clinical diagnosis or treatment, nor for food or drug applications.





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