

## Enhanced Endogenous Peroxidase Blocking Buffer

### Introduction

Endogenous peroxidase is widely present in cells and tissues, such as red blood cells, kidney, and liver tissues. The presence of endogenous peroxidase may lead to high background staining or even false-positive results. Therefore, it is necessary to block using an appropriate peroxidase blocking buffer prior to staining to eliminate interference from endogenous peroxidase.

This product is a ready-to-use, extensively tested, and optimized strong endogenous peroxidase blocking buffer with superior blocking efficacy. It is specifically designed for blocking endogenous peroxidase activity in tissues or cells during immunohistochemistry (IHC), immunocytochemistry (ICC), and in situ hybridization (ISH). Compared to conventional hydrogen peroxide solutions, this product almost completely inhibits peroxidase activity, thereby more effectively reducing non-specific background staining without compromising specific signals. In some cases, it may even enhance specific signals, offering superior performance.

Based on a volume of 100  $\mu$ L of blocking buffer per sample, one 100 mL package is sufficient for 1,000 samples.

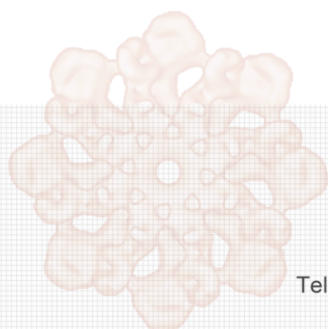
### Protocol

- For immunohistochemistry (IHC) and immunocytochemistry (ICC)
  - a. For IHC and ICC samples, first wash the samples for 3–5 minutes using Immunostaining Wash Buffer or a solution with cell membrane permeabilization function.
  - b. Aspirate the wash buffer, add an appropriate amount of Endogenous Peroxidase Blocking Buffer to completely cover the sample, and incubate for 5–10 minutes at room temperature or 2–5 minutes at 37°C.
  - c. Remove the blocking buffer and wash the samples 2–3 times (2–5 minutes per wash) with wash buffer, PBS, or an appropriate solution. Then proceed with subsequent steps such as blocking and primary antibody incubation.
- For in situ hybridization (ISH):
  - a. Prior to probe hybridization, add an appropriate amount of Endogenous Peroxidase Blocking Buffer to completely cover the sample, and incubate for 5–10 minutes at room temperature or 2–5 minutes at 37°C.
  - b. Remove the blocking buffer and wash 2–3 times (2–5 minutes per wash) with the ISH wash buffer.

Then proceed with subsequent steps such as hybridization.

## **Note**

1. Primary application: Blocking endogenous peroxidase activity in tissues or cells during IHC, ICC, and ISH.
2. This product has been extensively tested and confirmed to significantly improve staining results in immunostaining, making them comparable to or even better than conventional methods. However, if suboptimal staining is observed for a particular antigen, it is recommended to try the Endogenous Peroxidase Blocking Buffer, which may yield better results.
3. For challenging cases where the peroxidase detection system is problematic, consider using an alkaline phosphatase detection system.
4. Although this product does not contain highly toxic methanol, it may still be irritating to the human body. Please take appropriate protective measures.
5. Storage and shipping conditions: Store at 4°C; stable for one year. Ship with blue ice.
6. This product is for scientific research use only.



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