Endogenous Peroxidase Blocking Buffer

Introduction

Endogenous peroxidase is present in many cells and tissues, such as red blood cells, kidney, and liver tissues. Its presence can lead to high background or false-positive results when using peroxidase-based detection methods. Therefore, it is recommended to block the samples using an appropriate peroxidase blocking buffer prior to staining to eliminate interference from endogenous peroxidase.

This product is a ready-to-use formulation that has been extensively tested and optimized, providing excellent blocking performance that effectively reduces staining background without compromising specific signals. In many cases, its blocking efficacy surpasses that of conventional hydrogen peroxide solutions. It is primarily used for blocking endogenous peroxidase activity in tissues or cells during immunohistochemistry (IHC), immunocytochemistry (ICC), and in situ hybridization (ISH).

Based on a volume of 100 µL 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 (1–3 minutes per wash) with wash buffer, PBS, or an appropriate solution. Then proceed with subsequent steps such as blocking and primary antibody incubation.

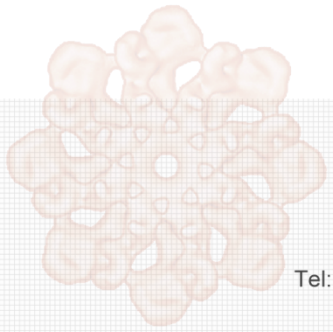
- For in situ hybridization (ISH):

  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. If background staining persists after using this product, consider using the Strong Endogenous Peroxidase Blocking Buffer.
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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