
Protein-Free Rapid Blocking Buffer (1×)

P751645

Storage Store at 2-8°C.

Shipping Shipped with ice packs. Please store under the specified storage conditions immediately upon receipt.

Introduction

This product is specially formulated for rapid and efficient blocking of Western Blot transfer membranes. Its protein-free formula prevents non-specific binding between antibodies and blocking agents, minimizing background signals. Additionally, this blocking reagent contains no endogenous phosphorylated proteins or biotin, so it will not interfere with phosphorylated specific antibody detection or biotin-based detection systems. It does not bind non-specifically to sample proteins, meaning it only blocks the membrane without masking antibody recognition sites on target proteins, significantly improving antibody detection sensitivity. Experiments confirm that this blocking reagent enhances signal intensity for many antibodies to varying degrees. However, this signal enhancement effect is antibody-specific and cannot be guaranteed for any single particular antibody.

Note: No single blocking reagent is compatible with all antigen and antibody detection systems. If this reagent yields unsatisfactory results with a specific antibody, switch to alternative blocking agents such as BSA or non-fat dry milk.

Product Features

1. **Rapid & High-efficiency:** Complete blocking within 5-10 minutes. It binds only to the transfer membrane rather than sample proteins, so antibody recognition sites remain intact, delivering a higher signal-to-noise ratio compared with traditional blocking methods using non-fat dry milk or BSA.
2. **Easy to Use:** Ready-to-use, no dilution required.
3. **Reliable Performance:** Protein-free formulation with no cross-reactivity with antibodies.
4. **Broad Compatibility:** Free of phosphorylated proteins and biotin, ideal for phosphorylated specific antibody assays and biotin detection systems.
5. **Antibody Saving:** Optimal working antibody concentrations are lower than standard protocols, greatly reducing antibody consumption.

Instructions for Use

1. After membrane transfer, place the blot in a hybridization incubation box, add 10-20 mL of protein-free rapid blocking solution (1×), and incubate on a gentle shaker at room

temperature for approximately 10 minutes (use as prepared).

Note: A blocking duration of 5-15 minutes is generally acceptable. Validation across multiple antibodies shows that 10 minute blocking achieves superior results compared to 1 hour conventional BSA blocking. For antibodies with high background, extend blocking time to 30-60 minutes. Overnight blocking at 4°C is also acceptable if required.

2. The blocked membrane is ready for primary antibody incubation and subsequent experimental procedures.

Precautions

1. This product may also be used for blocking in Immunohistochemistry (IHC) and Immunofluorescence (IF) experiments.
2. Wear a lab coat and disposable gloves during handling for personal safety and health protection.
3. For research use only.