Pierce Protein-Free Blocking Buffers

Block Western blots and ELISA plates without introducing exogenous proteins.

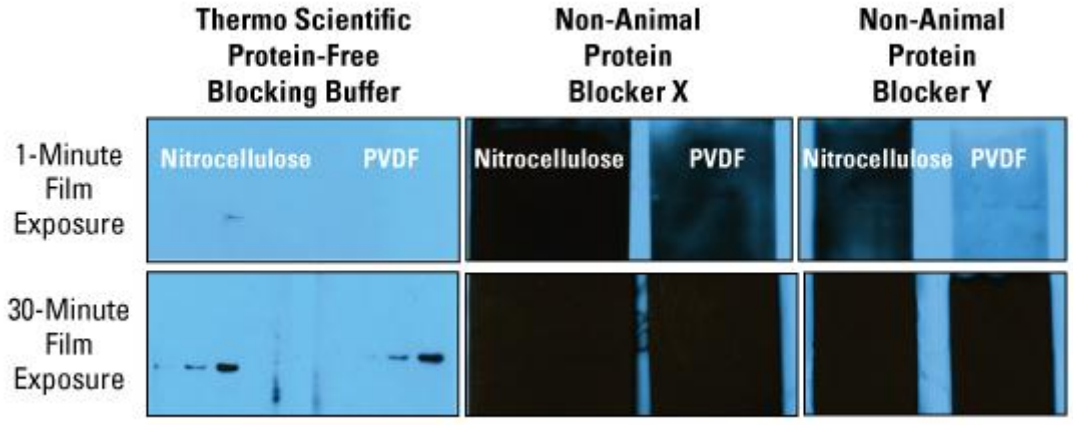
Pierce Protein-Free Blocking Buffers are PBS and TBS formulations of a non-protein compound that provides effective blocking for membrane-based and plate-based protein detection methods, resulting in extremely low background.

Traditional blocking buffers contain proteins that can cross-react with immunodetection systems, resulting in high background and reduced signal. Typical commercial alternatives to protein-based blocking agents are ineffective. Pierce Protein-Free Blocking Buffers are devoid of protein while remaining highly effective at blocking plates, membranes and other surfaces for ELISA, Western blotting, glass slide arrays and other applications.

Highlights:

- **Protein-free blocker** – minimizes or eliminates cross-reactivity associated with protein-based blocking buffers
- **Application-compatible** – effective in all kinds of protein detection systems, including Western blots (membranes), ELISA (microplates) and arrays (coated glass slides)
- **Streptavidin-friendly** – absolutely free of biotin; no possible interference with avidin-biotin detection systems
- **High-performance** – optimized and validated in many protein methods to provide high signal-to-noise ratio (i.e., no quenching of specific binding and signal but eliminating nonspecific binding and background)
- **Convenient** – supplied as ready-to-use 1X formulations in TBS and PBS with and without 0.05% Tween™ 20

Product Details:

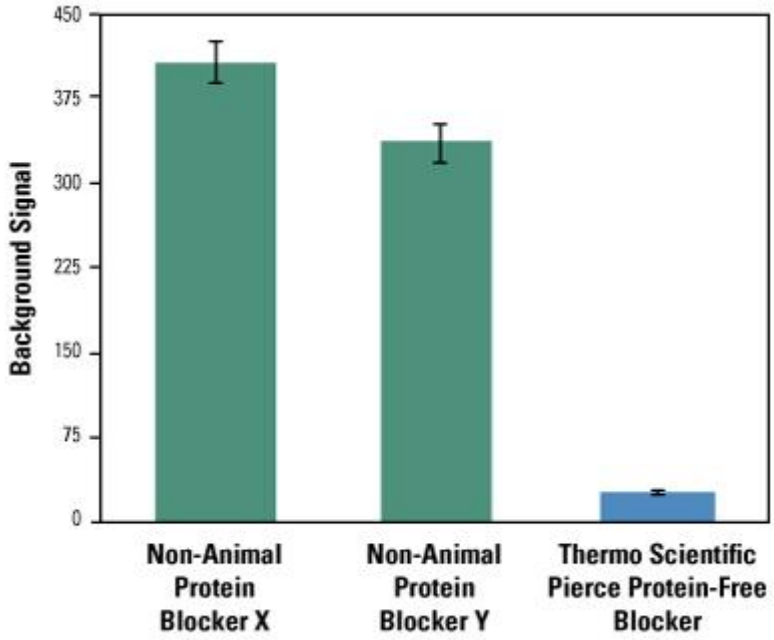


Pierce Protein-Free Blocking Buffer efficiently blocks Western Blotting membranes. Jurkat Apoptotic Lysate (lane 1: 0.25µg, lane 2: 0.50µg) was separated in 4-20% Tris-glycine gels and transferred to nitrocellulose or PVDF membranes. The membranes were blocked for 1 hour at room temperature with the indicated blocking buffer, probed with mouse anti-PARP (0.25µg/mL) followed by goat anti-mouse HRP (4ng/mL) and detected by chemiluminescence with SuperSignal West Dura Substrate.

In most experimental situations, blocking buffers based on readily available animal proteins provide the best control and elimination of nonspecific and off-target binding interactions between antibody probes

and assay platforms (nitrocellulose or PVDF membranes, polystyrene microplates or glass slides). However, certain sample-and-antibody combinations require the elimination of all possible exogenous animal proteins in the assay system to avoid cross-reaction or quenching of the desired probe function.

Various manufacturers have proposed the use of blocking buffers based on non-mammalian or non-animal proteins, suggesting that plant or bacterial proteins are less likely to cross-react with typical mammalian samples and antibodies. However, our experiments suggest that these non-animal protein blockers do not perform very well compared to Pierce Protein-Free Blocking Buffer, which is completely devoid of proteins (animal or otherwise).



Pierce Protein-Free Blocking Buffers exhibit less background than other commercial alternatives to animal protein blocking agents. Multiplex protein arrays were created by spotting 12 cytokine capture antibodies per well of 96-well microplates. The ELISA plates were then blocked with the indicated blocking buffers, probed with HRP-conjugated secondary antibody (no samples) and the background for each well determined by chemiluminescence. Error bars represent the standard deviation for triplicate microplate wells.

Ordering Information

Product #	Description	Pkg. Size	Instructions	MSDS	CofA	Price
37584	Protein-Free (PBS) Blocking Buffer Formulation: Proprietary compound in phosphate-buffered saline, pH 7.4 with Kathon Antimicrobial Agent *Sufficient For: 3 blots or microplates at 30mL each*	100mL				Local contact
37572	Protein-Free (PBS) Blocking Buffer Formulation: Proprietary compound in Phosphate-buffered saline, pH 7.4, with Kathon preservative *Sufficient For: 30 blots or microplates at 30mL each*	1L				Local contact
37573	Protein-Free T20 (PBS) Blocking Buffer Formulation: Proprietary compound in Phosphate-buffered saline, pH 7.4, with 0.05% Tween-20 and Kathon preservative *Sufficient For: 30 blots or microplates at 30mL each*	1L				Local contact

37585	Protein-Free (TBS) Blocking Buffer Formulation: Proprietary compound in Tris-buffered saline, pH 7.4 with Kathon Antimicrobial Agent *Sufficient For: 3 blots or microplates at 30mL each*	100mL		Local contact
37570	Protein-Free (TBS) Blocking Buffer Formulation: Proprietary compound in Tris-buffered saline, pH 7.4, with Kathon preservative *Sufficient For: 30 blots or microplates at 30mL each*	1L		Local contact
37571	Protein-Free T20 (TBS) Blocking Buffer Formulation: Proprietary compound in Tris-buffered saline, pH 7.4, with 0.05% Tween-20 and Kathon preservative *Sufficient For: 30 blots or microplates at 30mL each*	1L		Local contact

Related Resources:
Blocking buffers for Western blot and ELISA -- technical guide
Blocking strategies for immunohistochemistry -- technical guide

Related Products:
Western Blotting Catalog BA368a
Western Blot Stripping L7710A
Blotting Substrates (Chromogenic, Fluorescent, Chemiluminescent): see Cat-BA357a and more at PW (& for ELISA, WBlot , IHC/IF).
Buffers & Blocking: see Cat-BA352a and more at PW,

Products HighLights Overview

Information inquire

Reply by Fax : +33 (0) 4 70 03 82 60 or email at interbiotech@interchim.com

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