

# Pierce Mizer™ Antibody Extender NC

## Reduce the amount of primary antibody used in a Western blot by three- to 100-fold.

A simple 10-minute, post-transfer treatment of the target protein on nitrocellulose is all it takes to reduce the amount of primary antibody used by three-, 10-, 25- and even 100-fold, while maintaining equivalent signal compared to an untreated control.

### Pierce Mizer™ Antibody Extender NC Promise

Proper use of Mizer™ Antibody Extender NC will retain post-transfer detection of your target protein on nitrocellulose membrane when using **at least three times less primary antibody** than you are currently using. If you do not experience a minimum of three-fold reduction in primary antibody requirement with an equivalent or better performance on nitrocellulose membrane, we will refund the cost of the reagent.

### Highlights:

- **Equivalent signal in the Western blot detection application possible with less primary antibody**
  - Use at least three times less primary antibody than normal and retain comparable or higher signal detectability (the average reduction is 28.2 times)
  - Reductions of up to 100-fold are possible, resulting in significant savings and conservation of costly antibody
- **Conserve antibody independent of detection mode or enzyme**
  - Extends antibody in both colorimetric and chemiluminescent modes
  - Works in both horseradish peroxidase and alkaline phosphatase systems
- **Easy-to-perform, 10-minute protocol**
  - Investment of a few minutes yields an exceptionally high return in primary antibody cost-saving and material conservation
- **Single, ready-to-use reagent**
  - No formulation or dilution necessary



### How much will Mizer™ Antibody Extender NC save you?

To determine just how much you can save, visit [www.mizer.ws/](http://www.mizer.ws/) and use the Online Mizer™ Antibody Extender NC Interactive Calculator. Just key in the cost of your antibody and the calculator will show you the savings. For example, one of our researchers has an antibody that costs \$230/200 µg. She entered this information into the calculator and received the following results:

Primary Antibody Cost: \$230      Primary Antibody Volume in µg: 200 †

| Primary Antibody Reduction Factor (PAR Factor) | Primary antibody cost/blot vs. PAR Factor | Primary antibody cost per 20 blots – AES treated vs. untreated | Primary antibody cost savings – AES treated vs. untreated | Savings (including cost of Mizer™ Antibody Extender NC) |
|--|---|--|---|---|
| 0 (Untreated)                                  | \$23                                      | \$460  | \$0   | \$0   |
| 3X   | \$ 7.67                                   | \$153.40   | \$306.60  | \$211.60  |
| 12X  | \$ 1.91                                   | \$38.20  | \$421.80  | \$326.80  |
| 25X  | \$ 0.92                                   | \$18.40  | \$441.60  | \$346.60  |

† **Assumptions:** (1) Analysis based on 20 blots using an 8 cm x 10 cm nitrocellulose membrane. (2) Mizer™ Antibody Extender NC, 500 ml, treats 20 blots. (3) Primary antibody cost based on U.S. Price \$1.15 per µg. (4) 1:500 primary antibody dilution from a 1 mg/ml stock = 2 µg/ml with ECL™ Substrate. (5) 10 ml of primary antibody solution used per blot. (6) 20 µg of primary antibody used per untreated blot.

**Table 1. Chemiluminescent detection of targets on nitrocellulose membrane with and without Miser™ Antibody Extender NC Treatment.**

| Target Protein/<br>Expression Tag  | Primary Antibody<br>Reduction Factor | Primary<br>Antibody Cost | Amount of Lysate<br>Loaded on the Gel<br>per Lane |        |        |        | Blots treated with<br>Miser™ Antibody<br>Extender NC | Control Blot –<br>No Treatment |
|------------------------------------|--------------------------------------|--------------------------|---|--------|--------|--------|--|--------------------------------|
|                                    |                                      |                          | 1   | 2      | 3      | 4      |  |                                |
| Caspase-3                          | 3X                                   | \$230/200 µg             | 2.5 µg  | 5 µg   | 7.5 µg | 10 µg  |  |                                |
| Glutathione S-<br>Transferase-BIR2 | 4X                                   | \$230/200 µg             | 2.5 ng  | 5 ng   | 10 ng  | 15 ng  |  |                                |
| NFκB                               | 4X                                   | \$230/200 µg             | 2 µg  | 4 µg   | 6 µg   | 8 µg   |  |                                |
| 6xHis-Green<br>Fluorescent Protein | 4X                                   | \$350/100 µg             | 4 ng  | 8 ng   | 12 ng  | 16 ng  |  |                                |
| Ubiquitin                          | 10X                                  | \$230/200 µg             | 1.4 µg  | 2.8 µg | 4.2 µg | 5.6 µg |  |                                |
| p53                                | 12X                                  | \$230/200 µg             | 1 µg  | 2 µg   | 3 µg   | 4 µg   |  |                                |
| IκBα                               | 20X                                  | \$230/200 µg             | 1.4 µg  | 2.8 µg | 4.2 µg | 5.6 µg |  |                                |
| IL-6                               | 25X                                  | \$290/250 µg             | 100 pg  | 200 pg | 300 pg | 400 pg |  |                                |
| Cyclin-E                           | 100X                                 | \$230/200 µg             | 2.5 µg  | 5 µg   | 10 µg  | 15 µg  |  |                                |
| Phosphotyrosine                    | 100X                                 | \$230/200 µg             | 5 µg  | 7.5 µg | 10 µg  | 15 µg  |  |                                |

**Note:** The control blots and the Miser™ Antibody Extender NC-treated blots were subjected to identical experimental conditions. No Miser™ Antibody Extender NC treatment was applied to the controls before immunodetection.

## Protocol

This easy-to-perform nitrocellulose membrane treatment is inserted between the completion of the transfer step and the initiation of the blocking step in the Western blot detection protocol.

- 
1. Rinse nitrocellulose membrane after transfer with ultrapure water.
  2. Incubate membrane on a shaker with ~25 ml Antibody Extender NC for 10 minutes.
  3. Rinse membrane five times with ultrapure water.

## Ordering Information

| PRODUCT # | DESCRIPTION  | PKG. SIZE | U.S. PRICE  |
|-----------|--|-----------|-------------|
| 32110     | <b>Miser™ Antibody Extender Solution NC</b><br>Sufficient reagent for up to 20 nitrocellulose membranes (1,600 cm <sup>2</sup> ).          | 500 ml    | <b>\$95</b> |
| 32105     | <b>Miser™ Antibody Extender Solution NC Trial Pack</b><br>Sufficient reagent to treat two nitrocellulose membranes (160 cm <sup>2</sup> ). | 50 ml     | <b>\$35</b> |

## Complementary Products

| PRODUCT # | DESCRIPTION  | PKG. SIZE       |
|-----------|--|-----------------|
| 88018     | <b>Nitrocellulose Membrane, 0.45 µm, 33 cm x 3 m</b> | 1 roll          |
| 34090     | <b>CL-XPosure™ Film (5" x 7" sheets)</b>             | 100 sheets/pkg. |
| 34091     | <b>CL-XPosure™ Film (8" x 10" sheets)</b>            | 100 sheets/pkg. |
| 34089     | <b>CL-XPosure™ Film (18 cm x 24 cm sheets)</b>       | 100 sheets/pkg. |
| 21059     | <b>Restore™ Western Blot Stripping Buffer</b>        | 500 ml          |
| 21065     | <b>Erase-It® Background Eliminator</b>               | Kit             |

**PIERCE**

Tel: 815-968-0747 or 800-874-3723 • Fax: 815-968-7316 • Customer Assistance E-mail: CS@piercenet.com

ECL™ is a trademark of Amersham Biosciences. © Pierce Biotechnology, Inc., 2005. Printed in the U.S.A. Pierce products are supplied for laboratory or manufacturing applications only. Prices listed herein are accurate at time of printing. For up-to-date pricing, visit our web site.

# 1601156 02/05

