F17-53-3-E; Effective 05/26/2017; Supersedes F17-53-3-D

Neptune™ Block

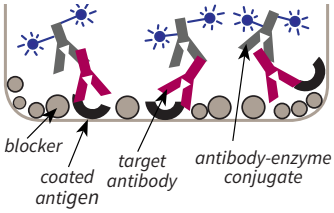
Reduces background using small, non-mammalian blocking agents.

Neptune™ Block utilizes a non-mammalian protein extract and small molecular stabilizers to provide a high degree of blocking efficiency. It is designed for antigen-down and sandwich immunoassays with high background problems. Neptune Block is a heterogeneous mixture of small molecules capable of blocking the unoccupied regions of the polystyrene plate wells that are not sterically accessible to larger, traditional mammalian blocking agents. This minimizes non-specific binding interactions and significantly reduces background noise, increasing the sensitivity of the assay. These small blocking molecules also stabilize the adsorbed proteins for improved retention of antigenicity or antibody activity after drying and long-term storage. In addition, the small size of these unique blocking agents results in minimal steric hindrance to key epitope regions of coated proteins, which prevents masking of small coated peptides, enhancing their specific antigenic signal.

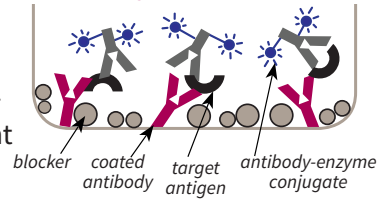
Since Neptune Block utilizes a non-mammalian protein blocking agent, it is antigenically foreign to most mammalian immune systems. In antigen-down ELISA formats used to detect antigen-specific antibodies, this reduces the possibility of false-positives generated from endogenous antibodies in the sample reacting with plate blocking proteins. Neptune Block is particularly useful when working with human, swine, and bovine serum samples, as minimal interaction between Neptune Block's blocking molecules and mammalian serum matrices results in lower backgrounds. Neptune Block contains an antimicrobial agent for room temperature blocking of the plate and for long-term storage of the dried plate at 2-8°C.

When preparing plates, the antibody or antigen is typically coated using 50-200µL of coating solution per well. After coating, plates are normally washed to remove unbound proteins and then blocked using a larger volume of blocking buffer than was used for coating, such as 300 µL per well. This ensures that all uncoated regions inside the well are blocked. A 96-well plate blocked using this method will require 28.8mL of blocking solution. Allow approximately 10% extra blocking buffer to account for losses during pipetting.

Antigen-Down ELISA



Antibody Sandwich ELISA



NEPTUNE™ BLOCK

Size	Catalog #
100 mL	#62
500 mL	#63
1 L	#64
10 L	#660

INSTRUCTIONS:

1. Coat antibody or antigen onto the ELISA plate (use coating buffer catalog #645 or #6248).
2. Incubate 8-24 hours at room temperature.
3. Aspirate the coating solution.
4. Wash plate twice with ELISA Wash Buffer (catalog #652).
5. Block the uncoated regions of the ELISA plate by pipetting 300-400 µL of blocking buffer into each well. Always use a greater volume of blocking buffer than was used for the coating solution.
6. Incubate 8-24 hours.
7. Aspirate the blocking buffer; do not wash.
8. Run the assay immediately, or dry the plate for long-term storage and seal in a foil bag (catalog #6288) with a desiccant pack (catalog #6289).

For more ELISA protocols and information, please visit www.immunochemistry.com.

SPECIFICATIONS:

- Light yellow liquid
- 1X ready to use
- pH 7.2-7.6

STORAGE:

- 24 months at 2-8°C
- 1 week at room temperature

SAFETY & USAGE:

- Contains ≤ 0.1% sodium azide
- SDS available at immunochemistry.com
- Not for human or drug use
- For research use only

Build a better assay with ELISA Solutions from ImmunoChemistry Technologies.

BRIGHT MINDS, BRIGHT SOLUTIONS.

ImmunoChemistry Technologies, LLC gratefully acknowledges the significant contributions made by one of its founders, Brian W. Lee, Ph.D in the development of this product, including the creation and illustration of its strategy and protocol.

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