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INSTRUCTIONS

ProFoldin Nucleic Acid Binding Blocker

Catalog Number **NBP96N**

Introduction

The Nucleic acid binding blocker is used to block non-specific interactions between nucleic acids and positively charged surfaces. In a hetero-phase nucleic acid - nucleic acid interaction, after the first nucleic acid binds to the positively charged solid phase, the solid surface was blocked by the blocker so that only the nucleic acid that recognizes the first nucleic acid will bind to the surface when the surface is exposed to various nucleic acids. The Nucleic acid binding blocker is provided as a 200 x concentrated stock solution (1 ml). It can be stored at 4°C or -20°C for long term storage. Dilute it with water 200 fold before use.

Protocols

DNA – DNA interactions

The following protocol is based on the interaction between a 40-mer oligonucleotide (DNA1) and its complementary strand (DNA2) on a 96-well DNA-binding plate (ProFoldin Catalog number NBP96B). Since the DNA binding capacity and the DNA-DNA interactions depend on the DNA properties and concentrations, this protocol should be used as a reference only. If the DNA concentration is lower, a longer binding time should be considered.

- (1) **The first DNA binding:** Add 200 µl of 0.5 µM DNA1 per well. Incubate for 2 hr or overnight^(a).
- (2) **Wash:** Discard the solution. Wash each well twice with 300 µl of 10 mM TrisHCl, 10 mM NaCl, pH 7.5.
- (3) **Block:** Add 300 µl of 1 X Nucleic Acid Binding Blocker (Catalog # NBP096N). Incubate for 1 hr.
- (4) **Wash:** Repeat Step (2).
- (5) **The second DNA binding:** Add 200 µl of 0.5 µM DNA2 per well. Incubate for 1 hr.
- (6) **Wash:** Repeat Step (2).
- (7) **Detection:** Detect DNA2.

Notes:

^(a). An overnight incubation at 4 °C helps more complete binding of the DNA to the plate.