

Pierce[®] DNA Coating Solution

17250

0698.2

Number	Description
17250	Pierce DNA Coating Solution, 100mL

Storage: Upon receipt store product at room temperature.

Introduction

The Thermo Scientific Pierce DNA Coating Solution is a quick, simple and cost-effective method for immobilizing DNA and oligonucleotides onto plastic surfaces. Because DNA has a low binding affinity for unmodified plastic surfaces, many researchers use binding proteins, such as avidin, to capture biotinylated DNA or chemical binding of DNA through the phospho groups to specially manufactured plates containing amino groups. These procedures are costly and time-consuming. The Pierce DNA Coating Solution, however, uses a simple mix-and-coat procedure that results in chemical bonding of DNA to most general laboratory plastic surfaces such as polystyrene microplates and polypropylene microcentrifuge tubes.

Important Product Information

- If the DNA Coating Solution is exposed to cold, a precipitate may form. To dissolve particulate, gently heat the solution in a water bath (25-37°C) with swirling. Do not use the solution if precipitate does not dissolve when heated.
- Empirically establish if the DNA coated to surfaces using the DNA Coating Solution is suited for a specific downstream experiment. Hybridization procedures are likely to be more successful than complex enzymatic manipulations.
- Although the DNA Coating Solution is suitable for oligonucleotides, a lower limit of oligo size has not been determined.

Example Protocol

1. In a glass test tube, combine up to 1 volume of DNA at 1-10µg/mL in water or TE buffer with 1 volume of Pierce DNA Coating Solution. Mix for 10 minutes.
2. Add the DNA mixture to the microplate wells or microcentrifuge tubes for coating.
3. Incubate for 1-2 hours or overnight at room temperature with gentle agitation or occasional mixing.
4. Remove nonbound DNA with a wash solution compatible with the downstream application, such as TBS (Product No. 28376) or PBS (Product No. 28374).

Product References

- Divi, R. L., *et al.* (2002). Highly sensitive chemiluminescence immunoassay for benzo[a]pyrene-DNA adducts: validation by comparison with other methods, and use in human biomonitoring. *Carcinogenesis* **23**(12):2043-9.
- Naramura, M., *et al.* (2002). c-Cbl and Cbl-b regulate T cell responsiveness by promoting ligand-induced TCR down-modulation. *Nat Immunol* **3**:1192-9.
- Schild, L.J., *et al.* (2003). Formation of tamoxifen-DNA adducts in multiple organs of adult female cynomolgus monkeys dosed with tamoxifen for 30 days. *Cancer Res* **63**:5999-6003.
- van Gijssel, H.E., *et al.* (2002). Semiquantitation of polycyclic aromatic hydrocarbon-DNA adducts in human esophagus by immunohistochemistry and the automated cellular imaging system. *Cancer Epidem Biomarker Prev* **11**:1622-29.

This product ("Product") is warranted to operate or perform substantially in conformance with published Product specifications in effect at the time of sale, as set forth in the Product documentation, specifications and/or accompanying package inserts ("Documentation") and to be free from defects in material and workmanship. Unless otherwise expressly authorized in writing, Products are supplied for research use only. No claim of suitability for use in applications regulated by FDA is made. The warranty provided herein is valid only when used by properly trained individuals. Unless otherwise stated in the Documentation, this warranty is limited to one year from date of shipment when the Product is subjected to normal, proper and intended usage. This warranty does not extend to anyone other than the original purchaser of the Product ("Buyer").

No other warranties, express or implied, are granted, including without limitation, implied warranties of merchantability, fitness for any particular purpose, or non infringement. Buyer's exclusive remedy for non-conforming Products during the warranty period is limited to replacement of or refund for the non-conforming Product(s).

There is no obligation to replace Products as the result of (i) accident, disaster or event of force majeure, (ii) misuse, fault or negligence of or by Buyer, (iii) use of the Products in a manner for which they were not designed, or (iv) improper storage and handling of the Products.

Current product instructions are available at www.thermoscientific.com/pierce. For a faxed copy, call 800-874-3723 or contact your local distributor.

© 2012 Thermo Fisher Scientific Inc. All rights reserved. Unless otherwise indicated, all trademarks are property of Thermo Fisher Scientific Inc. and its subsidiaries. Printed in the USA.