### Waters™

#### Application Note

# Desalting of DNA Oligonucleotides by SPE for MALDI Analysis

Waters Corporation

This is an Application Brief and does not contain a detailed Experimental section.

#### Abstract

This application brief highlights on the desalting of DNA oligonucleotides by SPE for MALDI analysis.

#### Introduction

#### Principles of Desalting

DNA oligonucleotides are retained on the Oasis HLB sorbent by ion-pair reversed-phase mechanism. A volatile ion-pair agent is used as loading buffer\* (0.1 triethylamine acetate, pH  $\sim$  7).

The Oasis HLB µElution 96 well plate has sufficient capacity for desalting 1 pmol up to 5,000 pmol of oligonucleotides sample.

## NEW! OASIS® µELUTION PLATE



Experimental

#### OASIS® HLB µELUTION PLATE EXTRACTION PROTOCOL

Conditions for Oasis® HLB µElution 96-well Plate Part Number 186001828BA

#### CONDITION:

200 µL 70 % Acetonitrile H<sub>2</sub>O

#### **EQUILIBRATE**:

200 µL H<sub>2</sub>O

#### LOAD:

Load solution onto plate at 1 mL/min or less (Low loading speed prevents breakthrough of Oligonucleotides)

#### WASH #1:

800 µL of 0.1 M TEAAc\* buffer (to remove Salts)

#### WASH #2:

200  $\mu$ L of H<sub>2</sub>O (to remove excess buffer and salts)

#### **ELUTE:**

25~mL of 70 % ACN, using a vacuum manifold. Alternatively, centrifuge plate with 10  $\mu l$  of 70 % ACN

Lyophilize eluent to complete dryness using SpeedVac Dissolve sample in MALDI matrix solution

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