

# WAVE® HS Staining Solution I

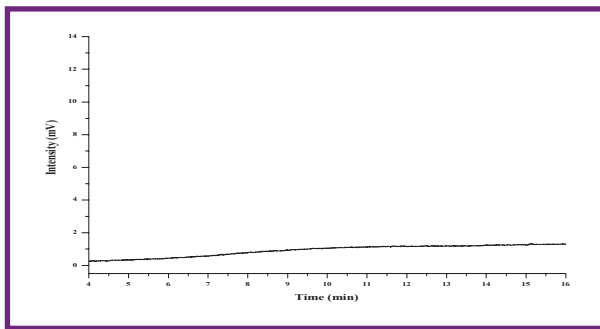
## For use with the WAVE-HSD High Sensitivity Detection System

### Description

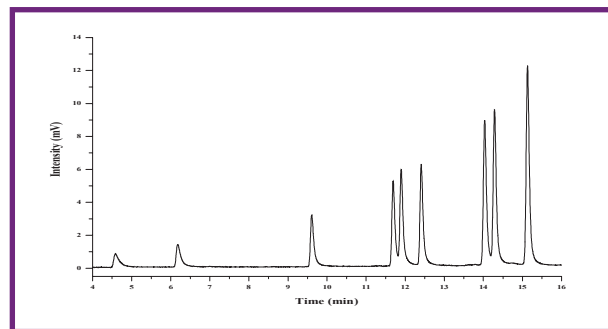
The Transgenomic WAVE HS Staining Solution I provides enhanced sensitivity for analysis of low quantities of nucleic acids when used with the WAVE HSD. The HS Staining Solution I contains a fluorescent detector. The fluorescent dye will fluoresce only when in a bound state in the presence of a nucleic acids complex.

### Contents

One bottle of 300 mL staining solution.



**Figure 1.** A 2  $\mu$ L sample of fluorescinated WAVE DNA Sizing Standard diluted at 1:25 was injected and analyzed on the WAVE System with a UV detector. This level of sample dilution did not display any visible results with the UV detector as demonstrated by a clean baseline.



**Figure 2.** A 2  $\mu$ L sample of fluorescinated WAVE DNA Sizing Standard diluted at 1:25 was injected and analyzed on the WAVE System with a WAVE HSD-High Sensitivity Detector. This sample dilution gave excellent results as compared to the analysis in Figure 1.

### Applications

The WAVE HS System can be used for applications that require extra sensitivity, including the following:

- Detection of somatic mutations — Enhances the detection of mutant alleles at low concentrations in the presence of highly abundant wild type alleles, in excess of 1:100 ratio.
- Pooling of DNA samples — Detects mutations in plant samples (barley) at a 1:48 ratio of mutant to wild type plants.
- Analysis of samples originating from PCR with low template concentration — PCR samples containing DNA template with concentrations as low as 0.5 ng can be successfully analyzed.



## Recommendations

Allow the solution to warm at room temperature before use. Mix well before using.

## Handling

Provided as a ready-to-use solution. Wear powder free nitrile gloves when handling the solution. MSDS available upon request.

## Storage

Store at 4° C in the dark.

## QC Analysis

Production Quality Control is performed on the WAVE HSD System under conditions listed on this product sheet.

## Sample Analysis Conditions

Eluent A: 0.1M Triethylammonium Acetate (TEAA)

Eluent B: 0.1M TEAA/25% Acetonitrile (ACN)

Flow Rate: 0.9 mL/min

Temperature: 50.0° C

Sample Injection: 2 mL of a 1:25 dilution

Transgenomic Sizing Standard (catalog no. 560078)

Sample loop: 100 mL

Clean type: Active Clean (Solution D)

Detector 1: UV at 260 nm

Detector 2: Fluorescence (Excitation at 492 nm,

Emission at 526 nm)

Gradient (total run time: 22.3 min)

Method Step	Time	%A	%B
Loading	0.0	65	35
Start Gradient	1.0	60	40
Stop Gradient	17.0	28	72
Start Clean	17.1	0	0
Stop Clean	18.1	0	0
Start Equilibrate	18.2	65	35
Stop Equilibrate	20.2	65	35

## Ordering Details

### Description

WAVE HS Staining Solution I

### Catalog Number

553442

### Quantity

1 case - 4 x 250 mL bottles

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Document No. 602074-01  
10/2008