

Chemiluminescent Detection Kit

Catalog Number

D-01

Contents

Detection Reagents for Twelve (12) RNA Samples

Description

The Chemiluminescent Array Detection Kit contains all of the reagents required to process GEArrays[®] for the detection of biotinylated probes or targets hybridized to the array. Each kit contains enough reagents to process twelve of any of the GEArray[®] nylon membranes (cDNA Q and S Series GEArrays[®] and Oligo GEArrays[®]) and to perform up to four quality control checks of Probe or cRNA Target Synthesis. Instructions for the use of this kit are included in your GEArray User Manual. A brief protocol for experienced array users is also provided below.

Materials Included

Please check the kit components immediately after you receive this package. SuperArray is not responsible for any missing items not reported within two (2) business days upon receipt.

Chemiluminescent Array Detection Kit

Component	Volume
GEAblocking Solution Q	35 ml
AP-Streptavidin	20 µl
5X Buffer F (5X Washing Buffer)	120 ml
Buffer G (AP Assay Buffer)	120 ml
CDP- <i>Star</i> Substrate	16 ml

Storage Conditions

The Chemiluminescent Detection Kit is shipped at ambient temperature. For long-term storage, keep entire kit at 4°C

Shelf Life: All reagents are stable for 6 months after receipt of the kit if stored at the recommended temperature.

Related Products

Oligo GEArray[®] Microarrays (See www.superarray.com/ArrayList.php for complete listings)
ArrayGrade[™] cRNA Cleanup Kit (GA-012) Oligo GEArray[®] Starter Kit (GA-029)
ArrayGrade[™] Total RNA Isolation Kit (GA-013) Oligo GEArray[®] Reagent Kit (GA-034)

Brief Protocol

Note: All of the following detection steps are performed at **room temperature**. Be sure to allow your hybridization oven and cylinders and our GEArray HybTube or HybPlate to cool before continuing.

Note: GEAblocking Solution Q and 5X Buffer F may cloud during storage at 4 °C. Warm the solutions to 37 °C and invert the bottles several times to allow any precipitate to completely dissolve. Allow the solutions to sit at room temperature until needed.

1. Blocking the Array:

Discard the last wash and add 2 ml GEAblocking Solution Q.

Incubate for 40 min with continuous agitation at 20 to 30 rpm.

2. Binding of alkaline phosphatase-conjugated streptavidin (AP):

Prepare Binding Buffer:

Dilute 5X Buffer F five-fold to prepare excess 1X Buffer F. Dilute AP 1:8,000 into 1X Buffer F to obtain your binding buffer. We suggest dispensing volumes of AP no smaller than 2 µl. You will also need 16 ml of 1X Buffer F per tube for washing (3).

Discard the GEAblocking Solution Q from the tube. Add 2 ml Binding Buffer, and incubate for 10 min with continuous but gentle (5-10 rpm) agitation.

3. Washing:

Wash the membrane four times with 4 ml 1X Buffer F for 5 min with gentle agitation. Vortex the tube gently after each addition of fresh 1X Buffer F. Rinse or wash twice with 3 ml Buffer G.

4. Detection:

Add 1.0 ml CDP-Star chemiluminescent substrate to the hybridization tube. Incubate at room temperature for 2-5 min.

Note: It is very important to cover the membrane evenly with the substrate.

Blot the membrane on a piece of filter paper to remove excess CDP-Star Solution.

Do not let the membrane completely dry out.

The membrane should be saturated and translucent without any solution dripping from it.

Place the membrane into a plastic sheet protector or into a small plastic zip-lock bag and smooth out any bubbles.