Oligo GEArray® System Components

Pathway focused Oligo GEArrays with barcode serial number

TrueLabeling-Amp™ 2.0 Kit enables target labeling in as quickly as 3 hours.

GEArray Express Multi-Chamber HybPlate allows processing of 8 arrays/plate simultaneously on a Thermoshaker or an incubator

OR the Oligo GEArray HybTubes allow processing of ~ 8 arrays/day individually in a hybridization oven

Focus on Your Pathway™
# Oligo GEArray® System: How It Works

**Steps:**
1. Use TrueLabeling-AMP to label your RNA.
2. Hybridize, Wash, and Develop GEArrays.
3. Array Imaging: Record array images for further analysis.

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Time</th>
<th>3: Array Imaging: Record array images for further analysis.</th>
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</thead>
<tbody>
<tr>
<td>PCR machine</td>
<td>3.5 hours to overnight, depending on total RNA input</td>
<td>3-hour or overnight Hybridization; 2-hour Development</td>
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<tr>
<td>Hybridization Oven for HybTubes Thermoshaker or incubator for HybPlate</td>
<td>0.5 hour</td>
<td>X-ray film or CCD-Camera (ChemiDoc) imaging station And GEASuite</td>
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Step 1: Label Target cRNA

Target labeling for GEArray Express

- **Starting material:** 0.1 - 10 μg Total RNA
- **TrueLabeling Primer & enzyme mix**
- **cDNA synthesis** (1 hour)
- **In vitro transcription** (1 hour*)
- **Spin column purification** (1/2 hour)

*For small sample input, IVT time can be extended to increase the yield of the labeled target
Step 2: GEArray® Hybridization, Washing, Developing

A. Hybridization in an oven, on a Thermoshaker, or in an incubator (3 hours to overnight)

B. Washing and developing GEArrays (2 hours)
Step 3: GEArray® Imaging and Data Analysis

A. Acquire chemiluminescent image using a cooled CCD camera or X-ray film.

B. Use web-based GEASuite to extract GEArray probe signals from the image and analyze gene expression profiles.