

## DNA Labeling Reagent, DLR (Biotin-11-dXTP)

Product Number 79015

### Brief Protocol

DNA Labeling Reagent, DLR, is a proprietary biotin-labeled, abasic, deoxynucleotide analog designed for efficient 3' end-labeling of DNA using Terminal Deoxynucleotidyl Transferase (TdT) after amplification reactions such as PCR. When used with streptavidin conjugated to a reporter, the 3' biotin labeled DNA fragment can be detected by enzyme activity, fluorescence, or by the binding of a secondary antibody. In addition, DLR will not base-pair with natural nucleotides, thus reducing non-specific binding and maximizing the signal-to-noise ratio. DLR is a component of the Affymetrix GeneChip® DNA labeling reagent (PN 900542) and has been used extensively to successfully probe microarrays for decades.

### Protocol

1. For a 50 µl reaction, add the following components on ice in the order indicated:

|                                |             |
|--------------------------------|-------------|
| Nuclease-free Water (PN 71786) | up to 50 µl |
| 5X TdT Buffer (PN 72035)       | 10 µl       |
| DLR (PN 79015)                 | 2 µl        |
| Template dsDNA                 | 1 µg        |
| TdT (PN 72033)                 | 2.5 µl      |

2. Gently mix the tube and centrifuge to collect the contents at the bottom of the tube.



3. Incubate at 37°C for 30 to 60 min.
4. Stop the reaction by adding EDTA to 20mM or by heating to 70°C for 10 min.
5. Purify labeled DNA (if desired) by ethanol precipitation or with the PrepEase® DNA Cleanup Kit (PN 78758).

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DLR is covered under US Patent 6,864,059 B2 and US Patent 6,965,020 B2.

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