ReadiLink™ Biotin Oligo and ssDNA Labeling Kit

Catalog number: 17490, 17491
Unit size: 10 Reactions, 20 Reactions

Component	Storage	Amount (Cat No. 17490)	Amount (Cat No. 17491)
Component A: Biotin-dUTP	Freeze (< -15 °C), Minimize light exposure	1 vial (20 µL)	2 vials (20 µL/vial)
Component B: TdT enzyme	Freeze (< -15 °C), Minimize light exposure	1 vial (5 µL)	2 vials (5 µL/vial)
Component C: CoCl2 solution	Freeze (< -15 °C), Minimize light exposure	1 vial (50 µL)	2 vials (50 µL/vial)
Component D: TdT Reaction Buffer	Freeze (< -15 °C), Minimize light exposure	1 vial (500 µL)	2 vials (500 µL/vial)

OVERVIEW

ReadiLink™ Biotin Oligo and ssDNA Labelling Kit enables simple and uniform tagging of single-stranded DNA or oligos with biotin tag. The labelling kit uses our proprietary TAQuest™ terminal deoxynucleotidyl transferase (TdT) to catalyze non-template directed nucleotide incorporation onto the 3'- end of single-stranded DNAs or oligos. The kit is optimized for efficient labelling and contains all the essential reagents required for efficient labelling of ssDNA or oligos. The resulting biotinylated oligo and ssDNA probes are ideally suited for a variety of biological applications, e.g., electrophoretic mobility shift assays (EMSA), Northern and Southern blots, colony or in situ hybridizations.

AT A GLANCE

Protocol summary

1. Prepare oligo or ssDNA samples
2. Add reagents to tube
3. Mix and centrifuge briefly
4. Incubate at 37 °C for 60 minutes
5. Place on ice for 5 minutes
6. Purify the labeled DNA

Note: Thaw all the kit components on ice before starting the experiment. Briefly centrifuge all the reagents to the bottom before starting the labeling process.

KEY PARAMETERS

Thermal Cycler

Instrument specification(s)	0.5 mL microcentrifuge or 0.2 mL PCR tube

SAMPLE EXPERIMENTAL PROTOCOL

The following protocol can be used as a guideline.

1. To a clean (Nuclease-free) 0.5 mL microcentrifuge tube or 0.2 mL PCR tube, prepare a reaction mix by adding the reagents in the order indicated in Table 1.
2. Carefully mix the reagents by a brief vortex, followed by a brief centrifuge.
3. Incubate the reaction at 37 °C for 60 minutes.
4. After incubation, place the reaction on ice for 5 minutes.
5. Purify the labeled DNA.

Table 1. Reagents composition per tube for each reaction

Components	Amount
Oligo or ssDNA sample	1 µg DNA diluted in Nuclease-free water to a final volume of 5 µL
TdT Reaction Buffer	40 µL
Biotin-dUTP	1-2 µL
$CoCl_2$	5 µL
TdT enzyme	0.5 µL
Total Volume	**52 µ L (Approx.)**

Note: The amount of Biotin-dUTP can be optimized to achieve the best labeling conditions.

DISCLAIMER

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