

## ReadiLink™ iFluor® 647 Oligo and ssDNA Labeling Kit

Catalog number: 17484, 17485  
Unit size: 10 Reactions, 20 Reactions

Component	Storage	Amount (Cat No. 17484)	Amount (Cat No. 17485)
Component A: iFluor® 647-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: CoCl <sub>2</sub> 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™ iFluor® 647 Oligo and ssDNA Labeling Kit enables simple and uniform tagging of single-stranded DNA or oligos with iFluor® 647, our bright, photostable and green-fluorescent fluorophore. 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 iFluor® 647-labelled DNA probes are ideally suited for 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
iFluor™ 647-dUTP	1-2 µL
CoCl <sub>2</sub>	5 µL
TdT enzyme	0.5 µL
<b>Total Volume</b>	<b>52 µL (Approx.)</b>

**Note:** The amount of iFluor™ 647-dUTP can be optimized to achieve the best labeling conditions.

### DISCLAIMER

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