



Qtracker[®] Cell Labeling Kit Protocol

Quantum Dot
invitrogen nanocrystal technologies

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Qtracker® Cell Labeling Kit Protocol

PLEASE READ ENTIRE PROTOCOL BEFORE STARTING.

Cell types other than those listed below can be used. Additional information can be obtained from the Qtracker™ Cell Labeling Kit product page on our website at www.invitrogen.com.

Materials

Cell lines such as: HeLa cells (ATCC # CCL-2) or U-118 cells (ATCC# HTB-15)
8-well Lab-Tek chambered coverglass system
75cm² cell culture flask
Qtracker™ Cell Labeling Kit

ATCC medium for HeLa:

Minimum essential medium (Eagle) with 2 mM L-glutamine and Earle's BSS adjusted to contain 1.5 g/L sodium bicarbonate, 0.1 mM non-essential amino acids, and 1.0 mM sodium pyruvate, 10% fetal bovine serum.
Temperature: 37° C

ATCC medium for U-118:

Dulbecco's modified Eagle's medium with 4 mM L-glutamine adjusted to contain 1.5 g/L sodium bicarbonate and 4.5 g/L glucose, 10% fetal bovine serum. Temperature: 37° C

Procedure

Subculture Cells:

1. HeLa or U-118 cells in 75cm² cell culture flasks are subcultured in 8-well Lab-Tek chambered coverglass system at a density of 2x10⁴ cells per well (cell density may vary if using a different size plate).
2. The cells are incubated in a 37°C, 5% CO₂ incubator overnight.

Labeling Procedure:

1. To prepare 10nM* labeling solution, pre-mix 1 µL each of Qtracker Reagent A and B in a 1.5 mL microcentrifuge tube. Incubate for 5 minutes at room temperature.
2. Add 0.2 mL of fresh full growth medium to the tube and vortex for 30 seconds.
3. Add 0.2 mL of labeling solution to the well with cells. (For cells in suspension, 1x10⁶ cells can be added to this labeling solution.)
4. Incubate at 37°C for 45-60 minutes.
5. Wash cells twice with full growth medium.
6. Labeled live cells can be observed under confocal microscopy.

* The working concentration is typically with the range of 2nM to 15nM depending on the cell type and application. Prepare dilutions based on the 2µM concentration of Qtracker Reagent A.