NutriCulture Cell Cycle Analysis Kit

20 Tests / 50 Tests / 100 Tests

Cat No : CCA20, CCA50, CCA100
Shipping : Ship at ambient temperature.
Storage : Store RNAse A Reagent at -20°C. Avoid repeated freeze and thaw cycles. Store Propidium Iodide (PI) Staining Solution at 4-8°C.

General Information

NutriCulture Cell Cycle Analysis Kit detects alterations in cell cycle by measuring DNA content. DNA binds to fluorescent dyes like PI and the fluorescence intensity at different stages of the cell cycle detected by flow cytometry can be different, which serves to detect different phases in cell cycle.

NutriCulture Cell Cycle Analysis Kit is intended to be used to detect the DNA content (cell cycle) of cultured suspension or adherent cells.
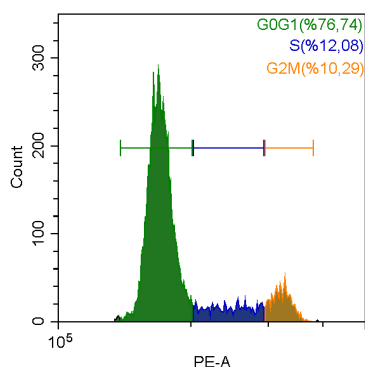

Figure 1. Cell cycle distribution of Hep-2 cells detected with *NutriCulture* Cell Cycle Analysis Kit.

Protocol

1. Seed and incubate cells in appropriate cell culture plates or flasks at 37°C in a humidified CO_2 incubator for 24 hours.

2. Apply substances to the cells.

3. Incubate the cells for an appropriate length of time (e.g. 12, 24, 48, 72 hours).

4. Collect the cells and split the cell suspension into tubes, 1×10^6 cells for each.

5. Centrifuge at 300 g for 5 min and discard the supernatant.

6. Add 0.5 mL 1x PBS to resuspend the cells. Centrifuge at 300 g for 5 min and discard the supernatant.

7. Fix the pelleted cells in 70% ethanol for 1 hour or overnight at -20°C.

8. Centrifuge at 300 g for 5 min and discard the supernatant.

9. Add 0.5 mL 1x PBS to resuspend the cells. Incubate at room temperature 10 min. Centrifuge at 300 g for 5 min and discard the supernatant.

10. Add 100 μL RNase A reagent to resuspend the cells, incubate at 37°C for 30 min.

11. Centrifuge at 300 g for 5 min and discard the supernatant. Add 400 μL PI Staining Solution to resuspend the cells, incubate at 4-8°C for 30 min.

12. Centrifuge at 300 g for 5 min and discard the supernatant. Add 0.5 mL 1x PBS to resuspend the cells.

13. Analyze the cells immediately with appropriate machine settings.