

Hoechst33342 and Pyronin Y Staining for G0/G1 Separation

Background

This is a method for the separation of G0 and G1 cell cycle phases. Hoechst is an exclusive DNA dye while Pyronin Y reacts with both DNA and RNA. In the presence of Hoechst, Pyronin Y reaction with DNA is blocked, and Pyronin Y stains RNA only. When cells are stained first with Hoechst33342 and then with Pyronin Y it is possible to distinguish DNA from RNA. Furthermore, quiescent cells, which are arrested in G0 phase, have lower level of RNA compared to active cells (G1 phase). This method is suitable for targeting senescent and resting cells.

Materials

- 1.

