Cell Navigator™ Cell Plasma Membrane Staining Kit *Green Fluorescence*

Catalog number: 22682
Unit size: 500 Tests

Component	Storage	Amount
Component A: Cellpaint™ Green	Freeze (< -15 °C), Minimize light exposure	1 vial
Component B: Assay Buffer	Freeze (< -15 °C)	1 bottle (50 mL)
Component C: DMSO	Freeze (< -15 °C)	1 vial (200 uL)

OVERVIEW

The Cell Navigator™ Plasma Membrane Stain Kit provides a fast and uniform labeling of the plasma membrane without the cell-type differences exhibited by lectins. It may be used as a segmentation tool for HCS (high-content screening), as well as to stain cellular plasma membranes for standard fluorescence microscopy. The green fluorescent stain used in the kit survives fixation, but not permeabilization, so it is not suitable for experiments that also involve probing internal targets via antibodies.

AT A GLANCE

Protocol Summary

1. Prepare cells in growth medium
2. Prepare and add Cellpaint™ Green working solution to cells
3. Incubate at 37°C for 5 to 20 minutes
4. Read fluorescence intensity with FITC filter set

Important Thaw one of each kit component at room temperature before starting the experiment.

Note This protocol only provides a guideline and should be modified according to your specific needs.

KEY PARAMETERS

Fluorescence microscope

Excitation	FITC filter set
Emission	FITC filter set
Recommended plate	Black wall/clear bottom/Glass slides

CELL PREPARATION

For guidelines on cell sample preparation, please visit https://www.aatbio.com/resources/guides/cell-sample-preparation.html

PREPARATION OF STOCK SOLUTIONS

Unless otherwise noted, all unused stock solutions should be divided into single-use aliquots and stored at -20 °C after preparation. Avoid repeated freeze-thaw cycles.

Cellpaint™ Green stock solution (500X)
Add 100 uL of DMSO (Component C) into the vial of Cellpaint™ Green (Component A) to make 500X stock solution.

Note 20 uL of Cellpaint™ Green 500X stock solution is enough for one 96-well plate. Unused Cellpaint™ Green 500X stock solution can be aliquoted and stored at ≤ -20°C for one month if the tubes are sealed tightly. Protect from light and avoid repeated freeze-thaw cycles.

PREPARATION OF WORKING SOLUTION

Cellpaint™ Green working solution (1X)

Add 20 uL of 500X stock solution into 10 mL of Assay Buffer (Component B), and mix well.

Note We recommend making the working solution fresh before use.

SAMPLE EXPERIMENTAL PROTOCOL

1. Add 100 uL/well (96-well plate) or 50 uL/well (384-well plate) of Cellpaint™ Green working solution in the cell plate. Incubate the cells at 37°C for 5-20 minutes, protected from light.

   Note The optimal concentration of the cell membrane probe varies depending on the specific application. The staining conditions may be modified according to the particular cell type and the permeability of the cells or tissues to the probe.

2. Remove working solution in each well. Wash cells with physiological buffer (such as HHBS, DPBS or buffer of your choice) for three times and replace with HHBS.

3. **Optional:** Fix cells after staining. Fix the cells with 4% formaldehyde for 15-30 minutes. Wash cells with physiological buffer for three times.

4. Observe the fluorescence signal in cells using fluorescence microscope with a FITC filter set.

EXAMPLE DATA ANALYSIS AND FIGURES

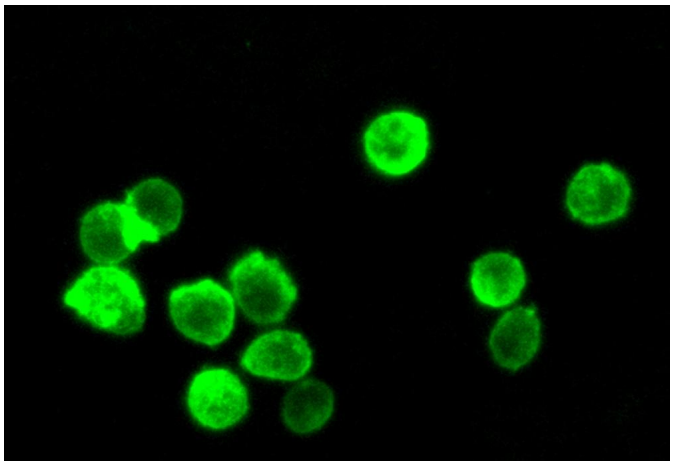

Figure 1. Fluorescence images of HL-60 cells stained with Cell Navigator™ Cell Plasma Membrane Staining Kit *Green Fluorescence* in a 96-well black wall/clear bottom plate. The cells were imaged using a fluorescence microscope equipped with a FITC filter set.

DISCLAIMER

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