

Cell Meter™ Direct Cell Proliferation Assay Kit

 Catalog number: 22506
 Unit size: 200 Tests

| Component | Storage | Amount (Cat No. 22506) |
|----------------------------------|--|------------------------|
| Component A: Nuclear Green™ LCS1 | Freeze (< -15 °C), Minimize light exposure | 1 vial (25 µL) |
| Component B: Signal Enhancer | Freeze (< -15 °C), Minimize light exposure | 1 vial (50 µL) |
| Component C: HHBS | Freeze (< -15 °C), Minimize light exposure | 1 bottle (20 mL) |

OVERVIEW

Cell Meter™ Direct Cell Proliferation Assay Kit offers an easy solution for quantifying cell proliferation and cytotoxicity in live cell populations. The assay is based on a proprietary cell-permeant DNA-binding dye paired with a signal enhancer that prevents dead-cell staining, ensuring that only intact, live cells are measured. This kit enables sensitive detection in the broad range of 50 to 25000 cells per well and is suitable for high-throughput screening applications.

This kit is compatible with standard fluorescence plate readers and multiplex assay formats making it a versatile choice for a wide range of applications including drug discovery, compound screening and bioproduction monitoring. Cell Meter™ Direct Cell Proliferation Assay Kit delivers accurate, reproducible, and easy-to-interpret data for your cell-based studies without the complexity of traditional assays.

AT A GLANCE

1. Prepare the cell samples and treat cells as desired.
2. Add dye working solution.
3. Incubate for 30 minutes.
4. Analyze with fluorescence microplate reader using Ex/Em = 490/525 nm.

Note: Allow all the components to warm to room temperature before opening the vials. Because this reagent binds to nucleic acids, it should be treated as a potential mutagen and handled with appropriate care. The DMSO stock solution should be handled with particular caution as DMSO is known to facilitate the entry of organic molecules into tissues.

KEY PARAMETERS
Fluorescence microplate reader

| | |
|-----------------------------|--------------------------------|
| Cutoff | 515 nm |
| Emission | 525 nm |
| Excitation | 490 nm |
| Recommended plate | Black wall/Clear bottom plates |
| Instrument specification(s) | Bottom read mode |

PREPARATION OF WORKING SOLUTION
Cell Meter™ Direct dye working solution:

Add 12 µL of Nuclear Green LCS1 (Component A) and 24 µL of Signal Enhancer (Component B) to 10 mL of cell culture medium, mix well.

Note: 10 mL volume is sufficient for 100 tests. Make Cell Meter™ Direct dye working solution sufficient for the assays and use promptly.

Note: Store unused Nuclear Green LCS1 (Component A) and Signal Enhancer (Component B) at -20 °C for further use.

SAMPLE EXPERIMENTAL PROTOCOL

The following protocol can be used as a guideline.

1. Prepare the cell samples and treat cells as desired. (Cell culture volume = 100 µL/well).
2. Add 100 µL of Cell Meter™ Direct dye working solution and incubate for 30 to 60 minutes at 37°C, 5% CO₂ incubator, protected from light. (Total volume = 200 µL/well).
3. Remove the Cell Meter™ Direct dye working solution and replace it with 100 µL/well of HHBS (Component C).
4. Measure the fluorescence using a fluorescence microplate reader with Ex/Em = 490/525 nm (Cutoff = 515 nm).

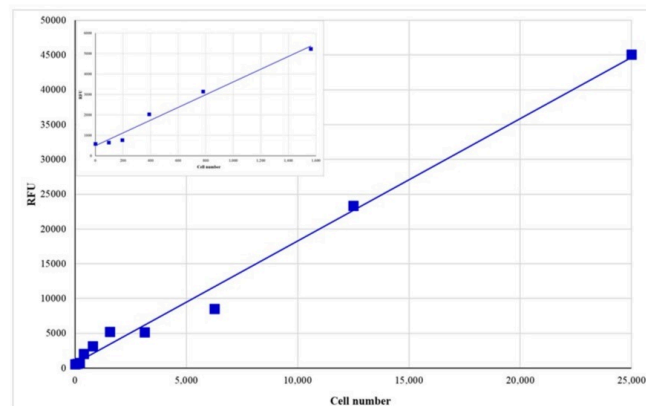
EXAMPLE DATA ANALYSIS AND FIGURES


Figure 1. Quantification of HeLa cells using Cell Meter™ Direct Cell Proliferation Assay kit. The linear range of cells from 50 to 25,000 HeLa cells were plated and assay was performed as per protocol. The insert shows the linearity that can be obtained at a very low number of cells.

DISCLAIMER

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