LIFE SCIENCE

Cell Proliferation/ Viability Assay Reagents

for Cell Counting via Chemiluminescence Measurement

New **ATP-Luciferase Cell Viability Assay Solution** 10mL [A3519]

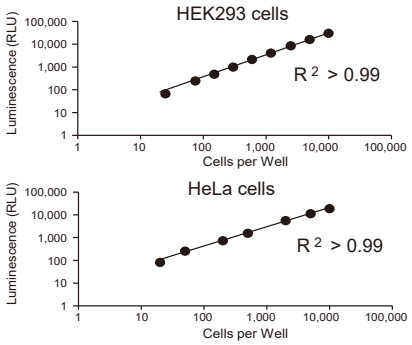
New **ATP-Luciferase Cell Viability Assay Solution** (1.0mL×10) 1set [A3495]

Advantages

- **Premixed for quick and easy use. No need to remove medium. Results in only 10 minutes.**
- **High-sensitivity, linear (R^2 > 0.99) quantification of cell numbers over 4 orders of magnitude (20 – 10,000 cells per well of a 96-well plate).**
- **Red-to-orange color change upon application helps keep track of large numbers of samples.**

Directions for Use

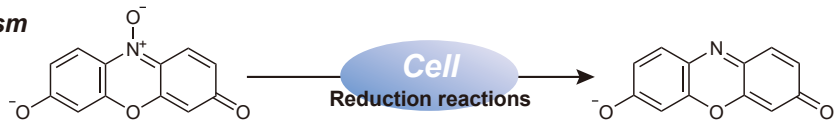
1. Thaw assay reagent ([A3495] or [A3519]) on ice.
2. Add volume of thawed assay reagent equivalent to volume of culture medium in each well.
3. Pipette gently to mix, incubate at room temperature for 10 minutes.
4. Measure chemiluminescence.



for Cell Counting via Fluorescence Measurement

Resazurin (Ready-to-use solution) [for Cell proliferation assay] 25mL [R0195]

Mechanism

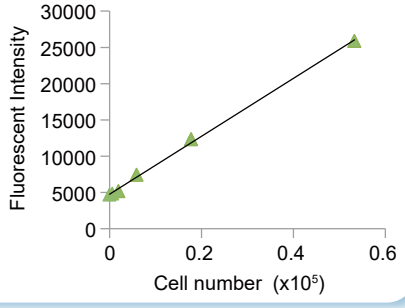


Ex: 540-570 nm, Em: 590 nm

Resazurin can be used to determine relative cell number, useful in the quantification of such phenomena as cell proliferation, viability, and cytotoxicity. When added to viable cells, blue, non-fluorescent resazurin undergoes a conversion to a highly fluorescent derivative. Both resazurin and its derivative are water soluble and have low toxicity, making it simple to handle and eliminating the washing, fixing, and extraction steps required for other commonly used cell proliferation assays.

Application: Cell viability assay by R0195

1. Add R0195 at a volume equal to 10% of the cell culture medium volume.
2. Return cells to the incubator and continue the incubation for 2-24 hours.
3. Measure the fluorescence intensity using 540-570 nm excitation and 590 nm emission wavelengths.
   *Absorbance measurement may also be used in place of fluorescence measurement to estimate cell number – use a 570 nm filter.

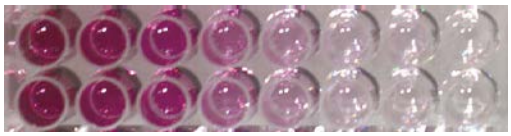


for Cell Counting via Absorbance Measurement

MTT [for Biochemical Research] 200mg / 1g [M3297]

MTT Solution [for Cell proliferation assay] (1mL×5) 1set [M3353]

MTT is a type of tetrazolium salt that is converted into formazan when taken up by living cells. This formazan can be dissolved in DMSO and the absorbance at 540 nm can be used to estimate the relative number of cells. M3353 consists of 5.0 mg/mL MTT dissolved in PBS.

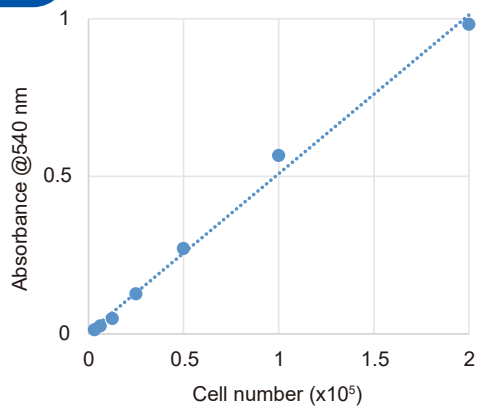


Cells stained by M3353

Application: Cell proliferation assay by M3353

1. Seed 100 µL of cells in a 96-well plate, and Incubate overnight in an incubator.
2. Add 10 µL of MTT solution [M3353] to each well.
3. Incubate for 2-4 hours until a color change is seen.
4. Remove medium, taking care not to inhale the formazan.
5. Add 100 µL of DMSO and dissolve the formazan.
6. Measure the absorbance at 540 nm.

Please adjust staining time and volume as needed.
Preliminary tests should be performed.

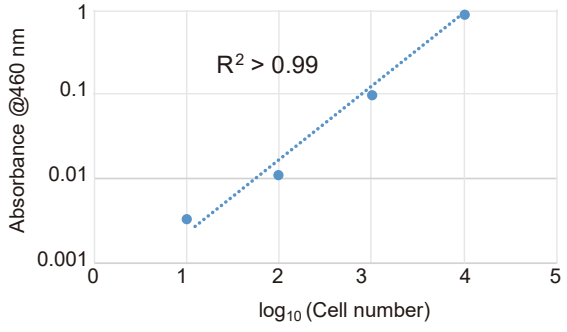


WST-8 Reagent [for Cell Proliferation Assay] 1mL [W0023]

W0023 is supplied as a ready-to-use reagent for the measurement of relative cell number. Reduction of the water-soluble tetrazolium salt WST-8 by the cell membrane-permeable electron carrier 1-MePMS converts it to a highly colored form which can be detected using a plate reader fitted with a 460nm absorbance filter. As 1-MePMS is itself reduced by intracellular NADH/NADPH, and NADH/NADPH concentration is relatively constant over the course of the cell cycle, the amount of reduced WST-8 and therefore the degree of color change can be used to determine relative cell number.

Application: Cell proliferation assay using W0023

1. Seed 100 µL of cells in a 96-well plate, and incubate overnight in an appropriate incubator.
2. Add 10µL of WST-8 Reagent [W0023] to each well.
3. Incubate for 1-4 hours until a color change is seen.
4. Measure the absorbance at 460 nm.



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