CellCount™ MTT Assay Kit

CC01-11/CC01-12/CC01-51/CC01-52

V2.0

For Research Use Only

Introduction

CellCount™ MTT Assay Kit is a colorimetric method for measuring the activity of enzymes in living cells by reducing MTT to formazan dyes. It is commonly used to determine the cytotoxicity of medicinal agents and toxic materials since these types of materials are expected to stimulate or inhibit cell viability and growth. **CellCount™ MTT Assay Kit** provides an easy-to-use, non-radioactive, and economical method for measuring cell proliferation, cell viability, and cytotoxicity.

Product Components

CellCount™ MTT Assay Kit (CC01-11)			**1,000 tests**
MTT Reagent	CC01-01	5 mg	10 tubes
User's manual			

CellCount™ MTT Assay Kit (CC01-12)			**1,000 tests**
MTT Reagent	CC01-01	5 mg	10 tubes
MTT Solvent	CC01-02	100 mL	1 bottle
User's manual			

CellCount™ MTT Assay Kit (CC01-51)			**5,000 tests**
MTT Reagent	CC01-01	5 mg	50 tubes
User's manual			

CellCount™ MTT Assay Kit (CC01-52)			**5,000 tests**
MTT Reagent	CC01-01	5 mg	50 tubes
MTT Solvent	CC01-02	100 mL	5 bottles
User's manual			

Safety Information

Please wear gloves, lab coat and goggles while operating. Prevent contact product directly. In case of contacting, wash with large amount of water.

Storage

CellCount™ MTT Assay Kit could be shipped at room temperature. MTT Reagent should be stored at 4 °C and shielded from light, and MTT Solvent should be stored at room temperature. Expiration date is labeled on the bottle or box.

Materials needed but not provided

1. 96 well plate with clear bottom
2. CO_2 incubator
3. Plate Reader capable of measuring absorbance in the region of 550 nm
4. PBS: 10 mM KH_2PO_4,150 mM NaCl, pH 7.4
5. Microplate-compatible centrifuge (for non-adherent cells)
6. Dimethyl sulfoxide, 98-100% ***(For CC01-11/CC01-51 Only)***

Instruction

1. Plate 500-10,000 cells in 100 µL media per well in a 96 well plate and incubate the plate in the CO_2 incubator at 37°C for 24 hours.

> **NOTE:** If your media contains serum or phenol red, set up media background controls (only 100 µL media without cells in well). And follow the steps for further normilzation.

2. Add 10 µL of various concentrations of substances into the test well.
3. Incubate the plate for an appropriate length of time (Example 6, 12, 24 or 48 hours) in the CO_2 incubator.
4. Add 1 mL of PBS into MTT Reagent tube and mix by vortexing or sonicating. If some particulate material does not dissolve, remove by filtration or centrifugation.

> **NOTE:** The MTT solution can be stored at 4°C for up to 4 weeks protected from light.

5. Add 10 µL of MTT solution to each well of the plate and shake at 150 rpm for 5 min, to thoroughly mix the reagent into the media.
6. Incubate the plate in the CO_2 incubator at 37°C for 2-5 hours.

> **NOTE:** For non-adherent cells, centrifuge the microplate at 1,000 x g for 5 minutes.

7. Remove all of media carefully from the wells and add 100 µL MTT Solvent or 100 µL Dimethyl sulfoxide to each well.
8. Incubate the plate in the CO_2 incubator at 37°C for 15 minutes.
9. Measure the absorbance at or near 550 nm on a plate reader within 1 hour.