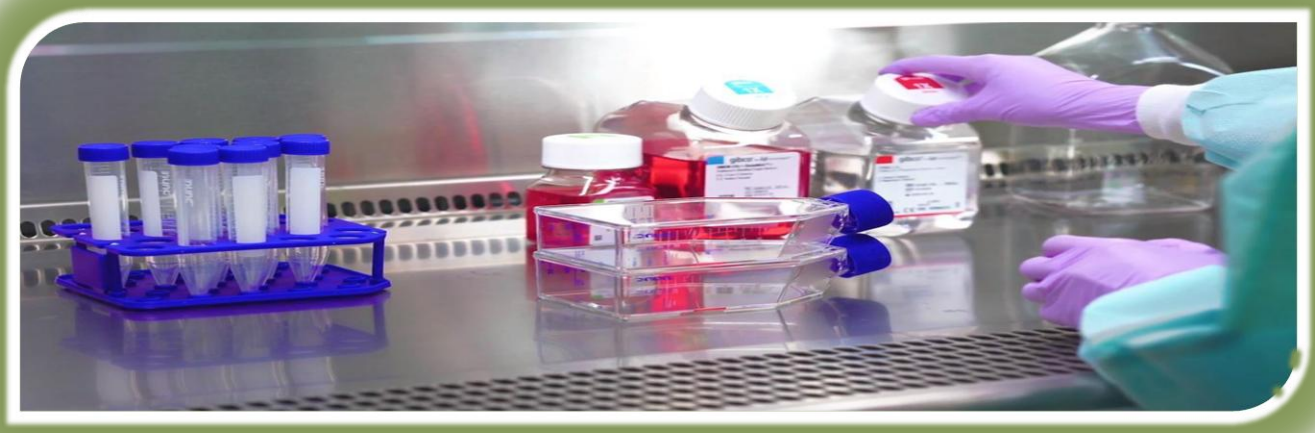
Kimia Andisheh Gene Pouyan

Knowledge based, technology- and research



Technical Manual

- ***MTT Cell Proliferation and Cytotoxicity Assay Kit***
- ***Catalogue Code :KAT-A101***
- ***Size: 96Assays***
- ***Research Use Only***

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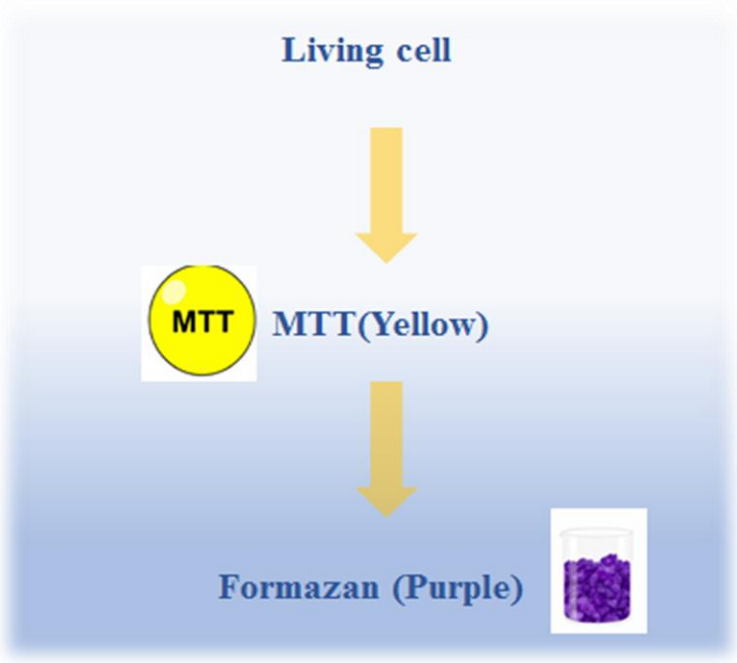
Introduction

The MTT Cell Proliferation and Cytotoxicity Assay Kit is designed to evaluate cell viability and proliferation by measuring the reduction of MTT by viable cells. This assay is simple, sensitive, and suitable for various cell types.

Storage

Store at 2~8°C for one year, MTT should be stored in dark.



Content :

No	Material	96 test
1	MTT	5mg/ml
2	Reagent 1	1ml
3	Reagent 2	10ml
4	Microplate reader	96 well

Reagent Preparation

1. Dilution of MTT:

Please dilute MTT with Reagent 1 solution before use. Note that the solution should be freshly prepared. The MTT working solution must be stored in the dark to maintain stability.

Staining Procedure

1. Cell Suspension Addition:

Add 90μL of cell suspension to each well of the 96-well microplate. For blank wells, include 90μL of culture medium without cells.

- For Cell Proliferation Tests: Add 90μL of cell suspension containing approximately 2,000 cells to each well.

- For Cell Cytotoxicity Tests: Add 90μL of cell suspension containing approximately 5,000–10,000 cells to each well.

The number of cells seeded in each well may vary based on cell size and proliferation rate, among other factors.

2. Culture the cells according to the experimental design.

3. Add 10 μL of MTT working solution to each well and incubate for 4 h

Note: MTT incubation conditions are the same as cell culture conditions

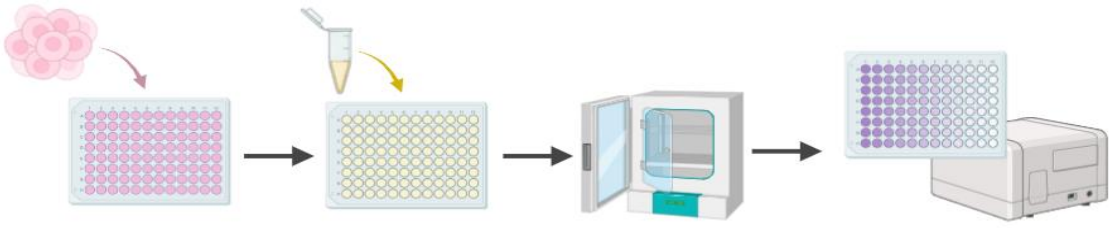
4.Allow Reagent 2 Buffer to reach room temperature before use. Add 100 μL of Reagent 2 to each well and incubate for 20–30 minutes to ensure complete

Dissolution of formazan. For optimal results, you may incubate the plate on an incubator shaker at 37°C to enhance formazan dissolution.

5. Observed under the microscope, measure the OD value with microplate reader at 570 nm after the formazan was fully dissolved.

$$\text{Cell Survival Rate (\%)} = \text{OD}_{\text{sample}} - \text{OD}_{\text{blank}} / \text{OD}_{\text{control}} - \text{OD}_{\text{blank}} \times 100$$

$$\text{Inhibition Rate} = \text{OD}_{\text{control}} - \text{OD}_{\text{sample}} / \text{OD}_{\text{control}} - \text{OD}_{\text{blank}} \times 100$$



Why choose Kimia Andisheh Gene Pouyan

-Expert working group and different orientations.

-Up-to-date equipment for research and knowledge development.

-Environmentally friendly and compliant products.

-Production of laboratory kits with high measurement accuracy and in accordance with global standards.

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