

# MTT Cell Proliferation and Cytotoxicity Assay Kit

MI020 (500tests)

## Product Description

MTT Cell Proliferation and Cytotoxicity Assay Kit is widely used for determination of cell proliferation and cytotoxicity. The MTT (3-(4,5-dimethyl-2-thiazolyl)-2,5-diphenyl-2-H-tetrazolium bromide) can be reduced by some dehydrogenase in mitochondria of living cells to form crystalline dark purple product solvent. There was a positive correlation between the number of living cells and absorbance.

## Kitcomponents

Components	Specifications	Storage
MTT solution	25mL	-20°C, in dark
Solvent	12.5mL	-20°C

### Notes:

- Warm the Solvent for 5 minutes at 20-25°C before use. Mix by inverting gently to avoid frothing.
- DMSO is not provided with the kit and is to be procured by the end user.

## OperationProcedures

1. Harvest cells in its log growth phase. Plate 3000-10000 cells/well in a 96 well plate.
  - Do not add cells to 2 wells. This will serve as the blank.
2. Return culture to the incubator.
3. Treat the cells as per requirement and incubate.
4. Feed plates with 200µL of fresh medium and add 50µL of the MTT solution (5 mg/mL in PBS) to all wells. Wrap the plates in aluminium foil and incubate for 4h in a humidified atmosphere at 37°C.
5. Remove the medium and MTT from the wells and dissolve the purple MTT-formazan crystals by adding 200µL of DMSO to all wells. Add 25µL solvent (per well) to all wells containing DMSO.
6. Record absorbance at 570 nm. Subtract the OD value of blank well from OD values of all the test wells.
7. A graph is plotted of absorbance (y-axis) against drug concentration (-axis).

## Notes

1. Uneven evaporation of culture medium will yield erroneous results.
2. The number of cells to be plated and the incubation time will differ with each cell line.