IK-11127 MTT Cell Viability Assay Kit

Unit Size: 1000 assays

Kit Contents

Component	Size
MTT solution	10 X 1 mL

Storage and Handling

MTT solution is stable at -20°C for at least 12 months from date of receipt. Protect from light.

Materials Required but Not Provided

Dimethylsulfoxide (DMSO)

Product Description

The MTT Cell Viability Assay Kit provides a simple method for the determination of cell number using standard microplate absorbance readers. Determination of cell growth rates is widely used in the testing of drug action, cytotoxic agents and screening other biologically active compounds. Among a variety of non-radioactive cell proliferation assays, the MTT assay developed by Mossman (1) is still among one of the most versatile and popular assays.

The MTT assay is based on the cleavage of the yellow tetrazolium salt MTT to purple formazan crystal by metabolic active cells (2-4). The formazan is then solubilized, and the concentration determined by optical density at 570 nm.
The result is a sensitive assay with a colorimetric signal proportional to the cell number. MTT Cell Viability Assay Kit provides ready-to-use reagents for performing 1000 individual assays using standard 96-well microplates.

Experimental Protocol

1. Plate cells into 96-well tissue culture plates. In general, cells should be seeded at densities between 5000 and 10,000 cells per well in order to reach optimal density within 48 to 72 hours.

2. Carry out desired cell treatments. The final volume of culture medium in each well should be 100 uL, and the medium may contain up to 10% Fetal Bovine Serum.

3. If sediment is present in the MTT solution, heat the solution to 37°C and mix gently until a clear solution is obtained.

4. Add 10 uL MTT solution to the 100 uL of medium in each well. Mix by tapping gently on the side of the tray or shake briefly on an orbital shaker.

5. Incubate at 37°C for 4 hours. At high cell densities (>100,000 cells per well) the incubation time can be shortened to 2 hours.

6. Add 200 uL DMSO directly into the medium in each well and pipette up and down several times to dissolve the formazan salt. The final volume in the well will be 300 uL (a standard 96-well cell culture plate has a maximum volume of 400 uL).

7. Measure the absorbance signal on a spectrophotometer at 570 nm. Measure background absorbance at 630 nm. Subtract background absorbance from signal absorbance to obtain normalized absorbance values.