

Cell Proliferation Kit I (MTT)

Cat. No. 11 465 007 001 2500 tests

Type	Colorimetric, microplate format
Useful for	Quantitation of cell viability and proliferation as well as cytotoxicity
Samples	Adherent or suspension cell cultures
Method	Incubation of cells with MTT, followed by solubilization and spectrophotometric assay of colored product
Time	5–28 h

Significance of kit: The Cell Proliferation Kit I (MTT) measures the metabolic activity of viable cells. The assay is nonradioactive and can be performed entirely in a microplate. It is suitable for measuring cell proliferation, cell viability or cytotoxicity.

Test principle: The assay is based on the reduction of the tetrazolium salt MTT by viable cells. The reaction produces a water-insoluble formazan salt which must be solubilized. The procedure involves:

- 1 Culturing the cells in a 96-well microplate, then incubating them with MTT solution for approx. 4 h. During this incubation period, viable cells convert MTT to a water-insoluble formazan dye.
- 2 Solubilizing the formazan dye in the microplate.
- 3 Quantitating the dye with an ELISA plate reader. The absorbance directly correlates with the cell number.

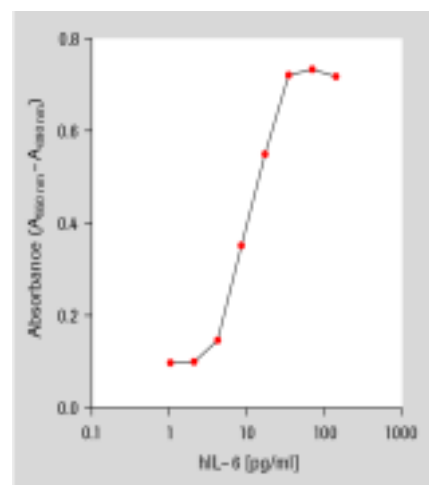
Can be used to assay:

- Adherent and suspension cells cultured in microplate.

Kit contents

1. MTT labeling reagent
2. Solubilization solution

Typical results: see Figures 56 and 58.



◀ **Figure 56:** Measurement of human Interleukin 6 (hIL-6) activity on the mouse hybridoma cell line 7TD1. Cells (2×10^3 /well) were incubated in the presence of various amounts of hIL-6. After 4 days incubation, cell proliferation was analyzed by Cell Proliferation Kit I (MTT).

Other applications: For more examples of how the Cell Proliferation Kit I (MTT) can be used in the lab, see Appendix, page 144.