

## Cell Viability Assay Kit

Cat. No. Kit-2423 Lot. No. (See product label)

### SPECIFICATION

#### Product Overview

The study of cell proliferation and cell viability requires the accurate quantification of the number of viable cells in a cell culture. Therefore, assays for calculating cell viability are necessary for optimizing cell culture conditions, evaluating cell growth factors and nutrients, discovering novel antibiotics and anti-cancer drugs, evaluating toxic effects of environmental pollutants and cell mediated toxicity and studying programmed cell death (apoptosis). The assay kit provides a convenient, sensitive, quantitative and reliable assay for determining the number of viable cells in a given culture. This homogeneous colorimetric assay is based on the conversion of a tetrazolium salt MTT, a pale yellow substrate, to formazan, a purple dye. This cellular reduction reaction involves the pyridine nucleotide cofactors NADH/NADPH and is only catalyzed by living cells. The formazan product has a low aqueous solubility and is present as purple crystals. Dissolving the resulting formazan with a solubilization buffer permits the convenient quantification of product formation. The intensity of the product color, measured at 550 - 620 nm, is directly proportional to the number of living cells in the culture. Reagents in the kit have been carefully formulated and optimized for sensitivity, assay robustness and automation.

|                         |           |
|-------------------------|-----------|
| <b>Storage</b>          | 4, -20°C  |
| <b>Shipping</b>         | RT        |
| <b>Size</b>             | 500 tests |
| <b>Detection method</b> | OD570nm   |

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|                                |   |
|--------------------------------|---|
| <b>Compatible Sample Types</b> | Cell culture  |
| <b>Features &amp; Benefits</b> | <p>Safe. Non-radioactive assay (cf. 3H-thymidine incorporation assay).</p> <p>Sensitive and accurate. As low as 950 cells can be accurately quantified. Fast. High-throughput assay using 96-well plates allows simultaneous processing tens of thousands of samples per day.</p> <p>Homogeneous and convenient. "Mix-incubate-measure" type assay. No wash and reagent transfer steps are involved.</p> <p>Robust and amenable to HTS. Z factors of 0.5 and above are observed. Can be readily automated with HTS liquid handling systems.</p> |
| <b>Assay time</b>              | 5 hrs   |
| <b>Sensitivity</b>             | 950 cells   |

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