

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.

Storage	4, -20°C
Shipping	RT
Size	500 tests
Detection method	OD570nm

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Compatible Sample Types	Cell culture
Features & Benefits	Safe. Non-radioactive assay (cf. 3H-thymidine incorporation assay). 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. Homogeneous and convenient. "Mix-incubate-measure" type assay. No wash and reagent transfer steps are involved. Robust and amenable to HTS. Z factors of 0.5 and above are observed. Can be readily automated with HTS liquid handling systems.
Assay time	5 hrs
Sensitivity	950 cells

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