Instruction Manual

FastCounting™
Cell Counting Kit

For colorimetric quantitation of viable cell number in proliferation and cytotoxicity assays

Storage: Store at 2-8 °C (1 year) or -20 °C (long-term) with protection from light.

Cat. No. 092690131, 092690132

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Product Description

FastCounting™ Cell Counting Kit (1mL reagent for 100 tests, and 5 mL for 500 tests) provides a sensitive and convenient method to determine cell viability in cell proliferation and cytotoxicity assays. The kit uses a water-soluble tetrazolium salt, WST-8 (i.e. 2-(2-methoxy-4-nitrophenyl)-3-(4-nitrophenyl)-5-(2,4-disulfophenyl)-2H-tetrazolium, monosodium salt) to quantify the number of live cells by producing a yellow colored formazan dye upon bio reduction by dehydrogenase activities in cells. The amount of formazan dye generated by the bio reduction inside cells is directly proportional to the number of living cells. The detection sensitivity of FastCounting Cell Kits is higher than other tetrazolium salts such as MTT, XTT, MTS or WST-1. Due to its stability and extremely low cytotoxicity, FastCounting is suitable for longer incubation periods (such as 24 or 48 hours).

This product is for R&D use only.

Key Benefits

- Highest sensitivity dye for cell viability
- Lowest cytotoxicity among tetrazolium reagents
- Simple procedures without thawing reagents
- Long shelf life and easy storage

Kit Contents

1 x 1 mL reagent for 100 tests (092690131)

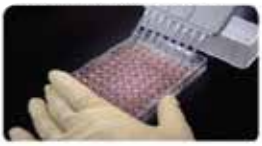
1 x 5 mL reagent for 500 tests (092690132)

Storage

FastCounting Cell Kit is stable for over 1 year at 2-8 °C with protection from light. It can also be stored at -20 °C long-term. Avoid repeated thawing and freezing, which can cause an increase in background.

General protocol for cell number determination (Figure 1):

1. Add FastCounting solution



2. Incubate for 1-4 hours

3. Measure O.D. at 450 nm

1. Inoculate cell suspensions (100 µL/well) in a well plate under the required cell culture conditions. Add 10 µL of FastCounting solution to each well of the plate. Avoid introducing any bubbles into the wells, which may interfere with O.D. readings.
2. Incubate the plate for 1-4 hours in the incubator.
3. Measure the absorbance at 450 nm using a microplate reader.

Cell Proliferation and Cytotoxicity Assay

1. Dispense 100 µL of cell suspension (5,000 cells/well) in a well plate.
2. Add 10 µL of various concentrations of substances to be tested to the plate.
3. Incubate the plate for an appropriate length of time (e.g. 6, 12, 24 or 48 hours) in an incubator.
4. Add 10 µL of FastCounting solution to each well of the plate (avoid generating bubbles).
5. Incubate the plate for 1-4 hours in an incubator.
6. Measure the absorbance at 450 nm using a microplate reader.

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