WST-1 Cell Proliferation and Cytotoxicity Assay Kit

Catalog No.: AR1158

Introduction

1. WST-1 Cell Proliferation and Cytotoxicity Assay Kit is a sensitive and accurate assay for cell cytotoxicity and proliferation. The kit components are sufficient for performing up to 100 assays.
2. WST-1 assay is much like MTT assay and the MTS assay, they are colorimetric assays for measuring the activity of enzymes that reduce MTT or close dyes (XTT, MTS, WSTs) to formazan dyes, giving a purple yellow. A main application allows assessing the viability (cell counting) and the proliferation of cells (cell culture assays). It can also be used to determine cytotoxicity of potential medicinal agents and toxic materials, since those agents would stimulate or inhibit cell viability and growth.
3. This kit is very convenience to use. It is unnecessary to use isotope, to wash and collect cells, as well as to solute formazan. The entire step can be done in only one 96-well plate.
4. No interrupt with Phenol red and serum.
5. WST-1 is not toxic to cells. After adds WST-1, it can be read by coated wells repeatedly in different time. In this way, the detect time will be more flexible to find the best detect time.
6. The kit components are sufficient for performing up to 100 assays.

Kit Component

WST-1（powder）	1 tube
Electron coupling reagent	1ml

Storage

At -20□ in dark for one year. After reconstituting, WST-1 solution can be stored at 4□ in dark for one week, at -20□ in dark for half of one year（avoid repeatedly freezing and thawing）.

Note

1.If cell culture time is too long, please pay attention to the evaporation issue. There are two solutions for this. a. Avoid using the outmost wells of the plate, and add PBS buffer, water or culture fluid instead; b. or place 96 wells near by the water in incubator.

2.Please wear transparent gloves when operate.

Protocol

1. WST-1 preparation: add 1ml Electron coupling reagent into WST-1 powder and mix thoroughly. After dissolving, the frozen WST-1 solution may appear some sediments, so, try to incubate it for 2-10 min at 37□ before use.
2. Collect logarithmic phase cell, adjust concentration of cell suspension; add WST-1 solution into the plate, 100ul per well. In general, cells seeded at densities between 1000-10,000 cells per well (side holes filled with aseptic PBS buffer). Seed cells in a 5% Co2 incubator at 37□ until cells bespread well bottom for one floor (The volume of cell for each well should be determined according to cells' size and breed speed). Add concentration gradient drug. Principlely, add drug after cells adhere. 0-10 μl per well. Using 3-5 repeating pipettors.
3. Add 10 μl WST-1 Reagent to each well, continue to culture for 4 hours. If drug react with WST-1, you could centrifugal first then remove nutrient solution. Wash with PBS buffer carefully 2-3 times; add nutrient solution with WST-1.
4. The incubate time response to the situation of cell's type and concentration. The first experiment can try to read the result after 0.5 hour, 1hour, 2 hours and 4 hours solely., then chose a proper time for next step.
5. Shake 96 wells for 1 min until solution become homogeneous.
6. Read absorbance at 450nm. If there's no 450nm filter, use 420-480nm instead. During dual wavelength spectrophotometry, you may choose wavelength longer than 600nm.

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