Product Information

WST-1 Cell Proliferation Colorimetric Assay Kit

I. Kit Contents:

Components	500 assays Quantity/Size	Storage
WST-1 Reagent (lyophilized)	1 vial	-20℃
Electro Coupling Solution (ECS)	1 x 5ml	-20℃

II. Introduction:

Cell proliferation can be detected by a variety of methods. Cell proliferation induces an increase in the activity of the mitochondrial dehydrogenases, which cleaves the tetrazolium salt WST-1 to formazan.

The WST-1 Cell Proliferation Colorimetric Assay Kit provides a fast and sensitive way for quantification of cell proliferation and viability. Cell proliferation causes the increase in the amount of formazan dye formed that can be quantified by measuring the absorbance of the dye solution at 440 nm using microtiter plate reader. The kit can be used for the analysis of cell proliferation in response to pharmaceutical compounds, cytotoxic compounds like anticancer drugs and many other toxic agents. The assay can also be used for the detection of cell proliferation in response to cytokines, mitogens, growth factors and nutrients, etc. The assay is very easy and simple, requiring no solubilization, no washing and no harvesting steps, and is faster and more sensitive than MTS, MTT or XTT-based assays. The entire assay can be performed in a microtiter plate.

III. Reagent Preparation and Storage:

WST-1 Mixture

Immediately before use, thaw the Electron Mediator Solution and WST-1 Developer Reagent. Combine equal volumes of Electron Mediator Solution with WST-1 Developer Reagent to make enough WST-1 mixture for the number of wells in your experiment and mix well.

If the entire volume will not be used in a single experiment, we recommend that you aliquot and store it at -20°C. When stored at -20°C, the WST-1 Mixture will be stable for several months. Avoid repeated freeze/thaw cycles.

IV. Cell Proliferation Assay Procedures:

1. Culture cells (0.1 - 5×10^4/well) in a 96-well microtiter plate in a final volume of 100 µl/well culture medium in the absence or presence of various
amounts of the factors tested. Note: For toxicity assays, use more cells to start with (e.g., 5×10^4 – 5×10^5 cells/well).
2. Incubate cells for 24-96 hours.
3. Add 10 µl/well WST-1/ECS solution to each well. Note: If the cells are cultured in different volume of culture medium, increase or decrease the
amount of WST-1/ECS solution correspondingly.
4. Incubate the cells for 0.5 – 4 hours in standard culture conditions. Note: The appropriate incubation time depends on the individual cell type and
cell concentration used. Therefore, it is recommended to determine the optimal incubation time for the particular

experimental setup used.

5. Shake thoroughly for 1 min on a shaker.

6. Measure the absorbance of the treated and untreated samples using a microtiter plate reader at 420 - 480 nm according to the filters available for

the plate reader. The reference wavelength should be ~ 650nm.

Notes:

1. Using the same amount of culture medium and WST-1/ECS solution in an empty well as a blank position for the microtiter plate reader.

2. The assay can be stopped by adding 10 µl of 1% SDS into each well, and shake mix.

3. Phenol Red in culture medium does not significantly interfere with the reading.

For research use only! Not to be used in humans.

Our promise

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For more details, please

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