Product Information

Ready-to-use Cell Proliferation Reagent, WST-1

I. Kit Contents:

Component	K2024-2500 2500 assays	Part Number
WST-1 Reagent (in electron coupling solution)	25 ml	K2024-C-1

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 ready-to-use cell proliferation reagent, WST-1 provides an accurate and simple way for quantification of cell proliferation. 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. WST-1 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 and be used for the assessment of antibodies and physiological mediators that inhibit cell growth. The assay is rapid, non-radioactive and more sensitive than MTS, MTT or XTT-based assays. The entire assay can be performed in the same microtiter plate requiring no solubilization, no washing and no harvesting steps.

III. User Supplied Reagents and Equipments:

96-well clear plate with flat bottom.

Multi-well spectrophotometer (ELISA reader).

IV. Reagent Storage and handling:

Aliquot the WST-1 Reagent and store at -20℃. The WST-1 Reagent is stable for a few weeks at 4oC, and 6 months at -20℃. It is recommended to prepare aliquots of the solution (1 ml is sufficient for assay with one 96-well microtiter plate), to avoid freeze/thaw.

V. Cell Proliferation Assay Procedure:

1. Culture cells (0.1 - 5 x 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 x 10^4 - 5 x 10^5 cells/well.)
2. Incubate cells for 24 - 96 hrs.
3. Add 10 µl WST-1 Reagent to each well. (Note: If the cells are cultured in different volume of culture medium, increase or decrease the amount of WST-1 Reagent correspondingly.)
4. Incubate the cells for 0.5 - 4 hrs 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 for 1 min on a shaker to mix the contents.
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 ~ 650 nm.

Notes:

Use the same amount of culture medium and WST-1 Reagent in an empty well as a blank control for the microtiter plate reader.

The assay can be stopped by adding 10 µl of 1% SDS into each well, and gentle mixing.

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 visit http://www.apexbt.com/ or contact our technical team.

Tel: +1-(832)696-8203
Fax: +1-832-641-3177
Email: sales@apexbt.com