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WST-8, reagent for cell proliferation assay

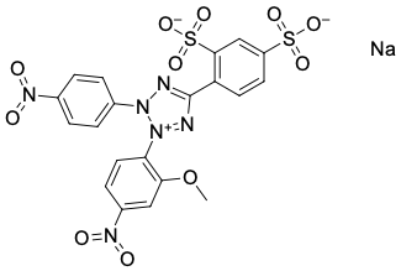
http://www.lumiprobe.com/p/wst-8-reagent

WST-8 (Water-Soluble Tetrazolium 8) is a water-soluble tetrazolium salt widely used to assess the metabolic activity of cells. The dye does not penetrate living cells but can be reduced outside the cells by NADPH-dependent cellular oxidoreductases to water-soluble formazan. The reaction occurs by electron transfer across the plasma membrane in a neutral pH and the presence of an intermediate electron acceptor, 1-methoxyphenazine methosulfate. The staining intensity is proportional to the number of viable cells. The maximum absorption of the reaction product is 450–500 nm.

The use of WST-8 has **several advantages**:

- Unlike MTT, working with WST-8 does not require dissolving formazan crystals, simplifying the protocol, and eliminating the use of toxic solvents (e.g., DMSO).
- Cell analysis using WST-8 is a one-step method. The reagent is added directly to the culture medium, and the results are read without additional processing.
- WST-8 is non-toxic to cells, which allows for long incubations (up to 24 hours) without the risk of artifacts.
- High sensitivity of the method. A wide dynamic range ensures accuracy even at low cell density.
- The method is compatible with adherent and suspension cultures and various types of spectrophotometric measurement plates.

We also supply WST-8 as a ready-to-use kit for cell proliferation assay.



Structure of WST-8

General properties

Appearance:	brick solid
Molecular weight:	600.47
CAS number:	193149-74-5
Molecular formula:	$C_{20}H_{14}N_6NaO_{11}S_2$
IUPAC name:	2-(2-Methoxy-4-nitropenyl)-3-(4-nitropenyl)-5-(2,4-disulfophenyl)-2H-tetrazolium, sodium salt
Solubility:	water, DMSO
Quality control:	NMR ^1H and HPLC-MS (95+%)
Storage conditions:	24 months after receival at -20°C in the dark. Transportation: at room temperature for up to 3 weeks. Desiccate.
Legal statement:	This Product is offered and sold for research purposes only. It has not been tested for safety and efficacy in food, drug, medical device, cosmetic, commercial or any other use. Supply does not express or imply authorization to use for any other purpose, including, without limitation, in vitro diagnostic purposes, in the manufacture of food or pharmaceutical products, in medical devices or in cosmetic products.