

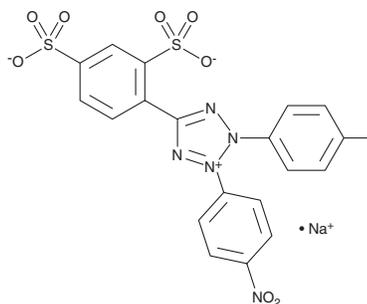
PRODUCT INFORMATION



WST-1

Item No. 31752

CAS Registry No.: 150849-52-8
Formal Name: 5-(2,4-disulfophenyl)-2-(4-iodophenyl)-3-(4-nitrophenyl)-2H-tetrazolium, inner salt, monosodium salt
Synonym: Water-Soluble Tetrazolium 1
MF: C₁₉H₁₁IN₅O₈S₂ • Na
FW: 651.3
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

WST-1 is supplied as a crystalline solid. A stock solution may be made by dissolving the WST-1 in the solvent of choice, which should be purged with an inert gas. WST-1 is soluble in organic solvents such as DMSO and dimethyl formamide (DMF). The solubility of WST-1 in these solvents is approximately 10 and 5 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of WST-1 can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of WST-1 in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

WST-1 is a water-soluble and cell-permeable tetrazolium dye.¹⁻³ Upon NADH-dependent enzymatic cleavage by cellular mitochondrial dehydrogenases, formazan is released, which can be quantified by colorimetric detection at 450 nm as a measure of cell viability.

References

1. Francoeur, A.M. and Assalian, A. Microcat: A novel cell proliferation and cytotoxicity assay based on WST-1. *Biochemica* **3**, 19-25 (1996).
2. Huang, J., Mondul, A.M., and Weinstein, S.J. Prospective serum metabolomic profiling of lethal prostate cancer. *Int. J. Cancer*. **145(12)**, 3231-3243 (2019).
3. Wen, D., Nong, Y., Morgan, J.G., et al. A selective small molecule IκB kinase β inhibitor blocks nuclear factor κB-mediated inflammatory responses in human fibroblast-like synoviocytes, chondrocytes, and mast cells. *J. Pharmacol. Exp. Ther.* **317(3)**, 989-1001 (2006).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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