

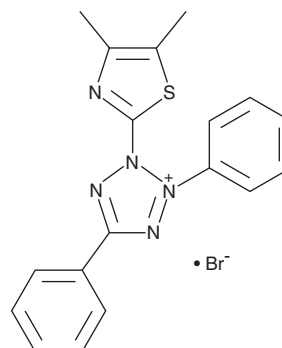
PRODUCT INFORMATION



MTT

Item No. 21795

CAS Registry No.: 298-93-1
Formal Name: 2-(4,5-dimethyl-2-thiazolyl)-3,5-diphenyl-2H-tetrazolium, monobromide
Synonyms: Methylthiazole Tetrazolium, NSC 60102, Thiazolyl Blue, Thiazolyl Blue Tetrazolium Bromide
MF: $C_{18}H_{16}N_5S \cdot Br$
FW: 414.3
Purity: $\geq 95\%$
UV/Vis.: λ_{max} : 242, 373 nm
Supplied as: A crystalline solid
Storage: $-20^{\circ}C$
Stability: ≥ 4 years



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

Laboratory Procedures

MTT is supplied as a crystalline solid. A stock solution may be made by dissolving the MTT in the solvent of choice. MTT is soluble in organic solvents such as ethanol and DMSO, which should be purged with an inert gas. The solubility of MTT in these solvents is approximately 1 and 0.25 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 MTT can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of MTT in PBS, pH 7.2, is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

MTT is a cell-permeable and positively charged tetrazolium dye that is used to detect reductive metabolism in cells.¹ It is taken up by cells through the plasma membrane and then reduced to formazan by intracellular NAD(P)H-oxidoreductases. It is frequently used in colorimetric assays to measure cell proliferation, cytotoxicity, and apoptosis.

Reference

1. Berridge, M.V., Tan, A.S., and Herst, P.M. Tetrazolium dyes as tools in cell biology: New insights into their cellular reduction. *Biotechnol. Ann. Rev.* **11**, 127-152 (2005).

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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