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Produktinformation

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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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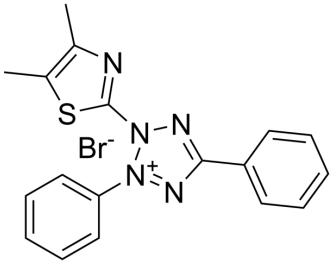
Thiazolyl Blue

Cat. No.:	HY-15924
CAS No.:	298-93-1
Molecular Formula:	$C_{18}H_{16}BrN_5S$
Molecular Weight:	414.32
Target:	Fluorescent Dye
Pathway:	Others
Storage:	4°C, sealed storage, away from moisture and light * In solvent : -80°C, 1 years; -20°C, 6 months (sealed storage, away from moisture and light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 25 mg/mL (60.34 mM; ultrasonic and warming and heat to 60°C)

H_2O : 0.88 mg/mL (2.12 mM; Need ultrasonic and warming)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.4136 mL	12.0680 mL	24.1359 mL
5 mM	0.4827 mL	2.4136 mL	4.8272 mL
10 mM	0.2414 mL	1.2068 mL	2.4136 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: PBS
   Solubility: 6.67 mg/mL (16.10 mM); Clear solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.08 mg/mL (5.02 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (5.02 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

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

In Vitro

1.Preparation of MTT working solution
Dissolve MTT by PBS to obtain 5 mg/mL of MTT.

2.Cell proliferation detection (96-well plates)
2.1Inoculated cells:Prepared single cell suspension to prepared with culture medium containing 10% FBS and inoculated into 96-well plate with 1000-10000 cells per well, volume of 100 uL per well.
2.2Incubated cells: 37℃. 5% CO_2, Incubate for 24-72 h.
2.3Add 10 µL MTT in per well and incubate for 4 h, Discard the supernatant, For suspended cells, need centrifuge firstly.
2.4Add 100 µL DMSO, shock 10 min to dissolve the crystal completely
2.5Monitor the absorbance increase with an absorbance plate reader at OD = 562 nm.
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Nat Biotechnol. 2023 Aug 3.
- Cell Mol Immunol. 2021 Mar;18(3):613-620.
- Bioact Mater. 2020 Mar 30;5(2):398-409.
- Nat Commun. 2022 Nov 10;13(1):6796.
- J Hazard Mater. 2020 Apr 5;387:121686.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Berridge MV, et al. Tetrazolium dyes as tools in cell biology: new insights into their cellular reduction. Biotechnol Annu Rev. 2005;11:127-52.

[2]. Berridge MV, et al. Tetrazolium dyes as tools in cell biology: new insights into their cellular reduction. Biotechnol Annu Rev. 2005;11:127-52.

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