Tetrazolium Red

Cat. No.: HY-D0714

CAS No.: 298-96-4

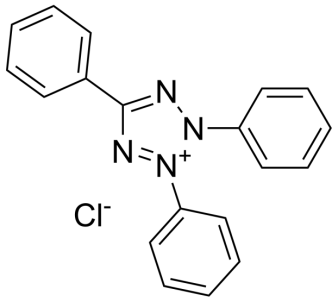
Molecular Formula: $C_{19}H_{15}ClN_4$

Molecular Weight: 334.8

Target: Biochemical Assay Reagents

Pathway: Others

Storage: 4°C, sealed storage, away from moisture and light
* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



SOLVENT & SOLUBILITY

In Vitro

H_2O : 50 mg/mL (149.34 mM; Need ultrasonic)
DMSO : 16.67 mg/mL (49.79 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.9869 mL	14.9343 mL	29.8686 mL
	5 mM	0.5974 mL	2.9869 mL	5.9737 mL
	10 mM	0.2987 mL	1.4934 mL	2.9869 mL

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

In Vivo

1. Add each solvent one by one: PBS
   Solubility: 25 mg/mL (74.67 mM); Clear solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 1.67 mg/mL (4.99 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 1.67 mg/mL (4.99 mM); Clear solution
4. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 1.67 mg/mL (4.99 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Tetrazolium Red(2,3,5-Triphenyltetrazolium chloride; TPTZ) is used to visualize dehydrogenase enzyme activity; initially the tetrazolium solution is colorless but changes to red when it comes into contact with hydrogen. Tetrazolium red is used in a biochemical viability test for seeds. The test relies on dehydrogenase enzymes to release hydrogen ions which subsequently reduce the colorless tetrazolium salt solution to a red compound called formazan. Living cells turn red while dead cells remain colorless.

CUSTOMER VALIDATION

- Molecules. 2023 Sep 8, 28(18), 6512.
- Research Square Print. 2022 May.

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Caution: Product has not been fully validated for medical applications. For research use only.

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