Phenol Red

Cat. No.: HY-D0169

CAS No.: 143-74-8

Molecular Formula: $C_{19}H_{14}O_5S$

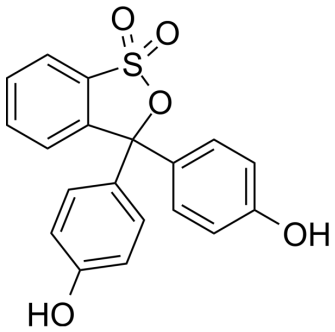
Molecular Weight: 354.38

Target: Fluorescent Dye

Pathway: Others

Storage: 4°C, protect from light

* In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 50 mg/mL (141.09 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.8218 mL	14.1091 mL	28.2183 mL
	5 mM	0.5644 mL	2.8218 mL	5.6437 mL
	10 mM	0.2822 mL	1.4109 mL	2.8218 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (7.05 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (7.05 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Phenol red (Phenolsulfonephthalein) is a pH indicator dye, relying on a distinct color change from pink to yellow in case of a positive reaction[1] [2].

In Vitro

Phenol red (PR) is the standard pH indicator in various cell and tissue culture media, as it provides a quick check for the health of the culture. Phenol red has also been used in multiple protocols to detect cellular hydrogen peroxide as well as peroxidase activity from human peroxidase enzymes[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Morgan A, et al. Caution for the routine use of phenol red - It is more than just a pH indicator. Chem Biol Interact. 2019;310:108739.

[2]. Peltzer D, et al. Rapid and simple colorimetric loop-mediated isothermal amplification (LAMP) assay for the detection of Bovine alphaherpesvirus 1. J Virol Methods. 2021;289:114041.

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