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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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2,4,6-Trimethylphenol

Cat. No.: HY-W038786

CAS No.: 527-60-6

Molecular Formula: $C_9H_{12}O$

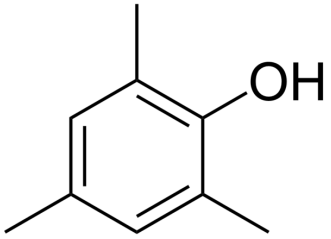
Molecular Weight: 136.19

Target: Others

Pathway: Others

Storage: 4°C, stored under nitrogen

* In solvent : -80°C, 6 months; -20°C, 1 month (stored under nitrogen)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (734.27 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	7.3427 mL	36.7134 mL	73.4268 mL
	5 mM	1.4685 mL	7.3427 mL	14.6854 mL
	10 mM	0.7343 mL	3.6713 mL	7.3427 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 (18.36 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (18.36 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (18.36 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

2,4,6-Trimethylphenol is a probe compound shown to react mainly with organic matter ($^3DOM^*$). 2,4,6-Trimethylphenol is rapidly oxidized by singlet oxygen in aqueous solution[1][2].

In Vitro

Peroxidatic substrates, catechol (CAT) and 2,4,6-trimethylphenol (TMP) were used as probes of thechloride dependent reactions catalyzed by chloroperoxidase (CPO). TMP is consumed only in the presence of chloride. TMP is a competitive inhibitor versus CAT, but CAT is a noncompetitive inhibitor versus TMP in chloride-dependent CPO-catalyzed peroxidation reactions. The ratio of TMP versus CAT consumed by the chloride-dependent CPO reaction in direct competition studies increases as the chloride concentration is increased from 1.0 to 400 mM[3].

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

REFERENCES

[1]. Rosado-Lausell SL, et al. Roles of singlet oxygen and triplet excited state of dissolved organic matter formed by different organic matters in bacteriophage MS2 inactivation. Water Res. 2013;47(14):4869-4879.

[2]. Paul G.Tratnyek, et al. Photo-oxidation of 2,4,6-trimethylphenol in aqueous laboratory solutions and natural waters: kinetics of reaction with singlet oxygen. Journal of Photochemistry and Photobiology A: Chemistry. Volume 84, Issue 2, 6 December 1994, Pa

[3]. Libby RD, et al. Defining the involvement of HOCl or Cl2 as enzyme-generated intermediates in chloroperoxidase-catalyzed reactions. J Biol Chem. 1992;267(3):1769-1775.

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