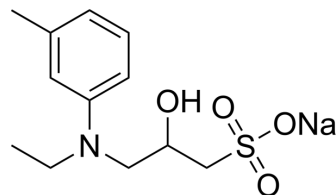


TOOS

Cat. No.:	HY-15932
CAS No.:	82692-93-1
Molecular Formula:	C ₁₂ H ₁₈ NNaO ₄ S
Molecular Weight:	295.33
Target:	Biochemical Assay Reagents
Pathway:	Others
Storage:	4°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

H₂O : 100 mg/mL (338.60 mM; Need ultrasonic)
 DMSO : ≥ 47 mg/mL (159.14 mM)
 * "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	3.3860 mL	16.9302 mL	33.8604 mL
	5 mM	0.6772 mL	3.3860 mL	6.7721 mL
	10 mM	0.3386 mL	1.6930 mL	3.3860 mL

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

In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 2.5 mg/mL (8.47 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.5 mg/mL (8.47 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.5 mg/mL (8.47 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

TOOS (TOOS sodium salt) is a highly water-soluble aniline derivative widely used in diagnostics and biological experiments. TOOS can be combined with 3-methyl-2-benzothiazolinone hydrazone hydrochloride (MBTH) to form a chromogenic system to measure oxidase activity. In the MBTH-TOOS chromogenic system, MBTH is catalytically oxidized to produce (-NH) free radicals, which react with TOOS to form colorless compounds. Furthermore, the colorless compound undergoes a disproportionation reaction to produce a blue-violet quinoid compound^[1].

In Vitro

MBTH-TOOS chromogenic system^[1]

Cit-PtNPs oxidase as an example: Mix 50 μ L Cit-PtNP, 250 μ L 3 mM TOOS, and 200 μ L 0.5 mM MBTH into 500 μ L Tris-HCl buffer solution (10 mM, pH=8.0) and incubate at 40°C for 25 min. Subsequently, the absorbance was measured at 590 nm and the oxidase activity level was calculated.

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

REFERENCES

[1]. Lin X, et al. Boosting the oxidase-like activity of platinum nanozyme in MBTH-TOOS chromogenic system for detection of trypsin and its inhibitor. *Talanta*. 2021 Nov 1;234:122647.

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

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