N-(2-Hydroxypropyl)methacrylamide

Cat. No.: HY-W077028

CAS No.: 21442-01-3

Molecular Formula: $C_7H_{13}NO_2$

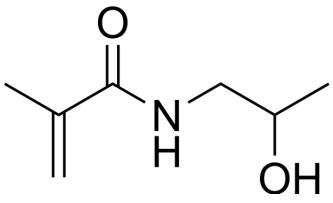
Molecular Weight: 143.19

Target: Biochemical Assay Reagents

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 (698.39 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	6.9839 mL	34.9196 mL	69.8392 mL
	5 mM	1.3968 mL	6.9839 mL	13.9678 mL
	10 mM	0.6984 mL	3.4920 mL	6.9839 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 (17.46 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (17.46 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (17.46 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

N-(2-Hydroxypropyl)methacrylamide is used to synthesize copolymers for the targeted delivery of antileishmanial agents in Visceral leishmaniasis (VL) [1][1].

In Vivo

At 5 mg/kg body weight drug equivalent dose, all N-(2-Hydroxypropyl)methacrylamide copolymer-drug conjugates which contained lysosomally degradable side chains shows significant in vivo antileishmanial activity (>99% inhibition)[1].

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

REFERENCES

[1]. Nan A, et al. N-(2-hydroxypropyl)methacrylamide (HPMA) copolymers for targeted delivery of 8-aminoquinoline antileishmanial drugs. J Control Release. 2001 Dec 13;77(3):233-43.

[2]. Hao Tang, et al. Comb-like Poly(N-(2-hydroxypropyl) methacrylamide) Doxorubicin Conjugates: The Influence of Polymer Architecture and Composition on the Biological Properties. Chinese Journal of Polymer Science volume 36, pages1225-1238(2018).

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