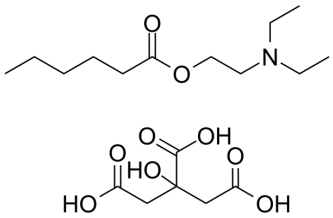
Diethyl aminoethyl hexanoate citrate

Cat. No.:	HY-112106A
CAS No.:	220439-24-7
Molecular Formula:	$C_{18}H_{33}NO_9$
Molecular Weight:	407.46
Target:	Others
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

DMSO : 100 mg/mL (245.42 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	2.4542 mL	12.2711 mL	24.5423 mL
	5 mM	0.4908 mL	2.4542 mL	4.9085 mL
	10 mM	0.2454 mL	1.2271 mL	2.4542 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: ≥ 5 mg/mL (12.27 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 5 mg/mL (12.27 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 5 mg/mL (12.27 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Diethyl aminoethyl hexanoate citrate is a compound that is widely used as a plant growth regulator.

In Vitro

Diethyl aminoethyl hexanoate citrate is used as a plant growth regulator, stimulates the regeneration of adventitious buds[1]. Diethyl aminoethyl hexanoate (DA-6, 1 μM) with EDTA effectively causes the Cd extraction. Diethyl aminoethyl hexanoate fixes more Cd in cell walls and reduces Cd migration in shoot to reduce metal toxicity. Furthermore, Diethyl aminoethyl hexanoate/gibberellic acid 3 in combination with EDTA alleviates the adverse effect of EDTA on plant growth[2].

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

REFERENCES

[1]. Chen XL, et al. An uncommon plant growth regulator, diethyl aminoethyl hexanoate, is highly effective in tissue cultures of the important medicinal plant purple coneflower (Echinacea purpurea L.). Biomed Res Int. 2013;2013:540316.

[2]. He S, et al. Synergetic effects of DA-6/GA_3 with EDTA on plant growth, extraction and detoxification of Cd by Lolium perenne. Chemosphere. 2014 Dec;117:132-8.

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