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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
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SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

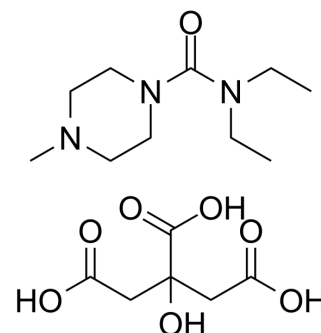
mail@szabo-scandic.com

www.szabo-scandic.com

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

Diethylcarbamazine citrate

Cat. No.:	HY-12642
CAS No.:	1642-54-2
Molecular Formula:	C ₁₆ H ₂₉ N ₃ O ₈
Molecular Weight:	391.42
Target:	Parasite
Pathway:	Anti-infection
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	H ₂ O : 100 mg/mL (255.48 mM; Need ultrasonic) DMSO : ≥ 39 mg/mL (99.64 mM) * "≥" means soluble, but saturation unknown.				
	Preparing Stock Solutions	Solvent Concentration Mass	1 mg	5 mg	10 mg
		1 mM	2.5548 mL	12.7740 mL	25.5480 mL
		5 mM	0.5110 mL	2.5548 mL	5.1096 mL
		10 mM	0.2555 mL	1.2774 mL	2.5548 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 (6.39 mM); Clear solution				
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (6.39 mM); Clear solution				
	3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (6.39 mM); Clear solution				

BIOLOGICAL ACTIVITY

Description	Diethylcarbamazine citrate is an orally active anthropoidal compound. Diethylcarbamazine citrate is an inhibitor of arachidonic acid metabolism of filaria microfilaria. Diethylcarbamazine citrate has anti-inflammatory and antiparasitic activity ^{[1][2][3]} .
In Vivo	Diethylcarbamazine citrate (250 mg/kg intravenously, single dose) induces a sharp early decrease in mf count in albino-infected rats, followed by an increase ^[2] . Diethylcarbamazine citrate (50 mg/kg orally, twice weekly) can improve insulin resistance in obese mice induced by high-fat

diet by regulating adipose tissue inflammation^[3].

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

Animal Model:	HFD-induced obese mice ^[3]
Dosage:	50 mg/kg
Administration:	p.o. twice a week
Result:	Reduced glucose , triglycerides and insulin levels. Reduced the levels of TNF- α , IL-6 and MCP-1. Reduced COX activity and inhibited this translocated or activated NF- κ Bp65.

REFERENCES

[1]. El-Shahawi GA, et al. Setaria equina: in vivo effect of diethylcarbamazine citrate on microfilariae in albino rats. Exp Parasitol. 2010 Dec;126(4):603-10.

[2]. Abdul-Razek N, et al. Enhancement of Anti-allergic Effect of Diethylcarbamazine Citrate in Asthmatic Mouse Model: Testing of Anti-drug Antibodies and Quercetin. Iran J Allergy Asthma Immunol. 2020 Aug 25;19(4):373-385.

[3]. Abdel-Latif M. Diethylcarbamazine citrate ameliorates insulin resistance in high-fat diet-induced obese mice via modulation of adipose tissue inflammation. Int Immunopharmacol. 2015 Dec;29(2):607-612.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA