



SZABO SCANDIC

Part of Europa Biosite

Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!



Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

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

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

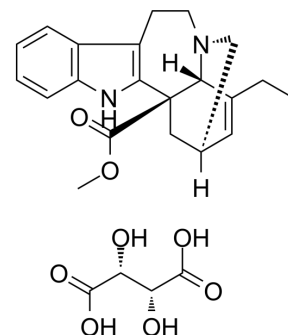
mail@szabo-scandic.com

www.szabo-scandic.com

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

Catharanthine Tartrate

Cat. No.:	HY-N0252A
CAS No.:	4168-17-6
Molecular Formula:	C ₂₅ H ₃₀ N ₂ O ₈
Molecular Weight:	486.51
Target:	Calcium Channel
Pathway:	Membrane Transporter/Ion Channel; Neuronal Signaling
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 (205.55 mM; Need ultrasonic)
H₂O : 5 mg/mL (10.28 mM; ultrasonic and warming and adjust pH to 3 with HCl and heat to 60°C)

Concentration	Solvent	Mass	1 mg	5 mg	10 mg
			1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM		2.0555 mL	10.2773 mL	20.5546 mL
	5 mM		0.4111 mL	2.0555 mL	4.1109 mL
	10 mM		0.2055 mL	1.0277 mL	2.0555 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 (5.14 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.5 mg/mL (5.14 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.5 mg/mL (5.14 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Catharanthine ((+)-3,4-Didehydrocoronaridine) Tartrate, a constituent of anticancer vinca alkaloids, inhibits voltage-operated L-type Ca²⁺ channel (VOCC). Catharanthine Tartrate has IC₅₀s of 220 μM and 8 μM for VOCC currents in cardiomyocytes and vascular smooth muscle cells (VSMCs), respectively. Catharanthine Tartrate lowers blood pressure (BP), heart rate (HR). Catharanthine Tartrate has anti-cancer activity^{[1][2]}.

IC₅₀ & Target

L-type calcium channel

In Vivo

Catharanthine ((+)-3,4-Didehydrocoronaridine; 0.5-20 mg/kg; IV; single dose) Tartrate evokes dose-dependent reductions in both BP and HR^[1].

Catharanthine (40 mg/kg; ip; single dose) Tartrate with acute administration induces similar antidepressant-like activity in male and female mice at 1 h and 24 h^[1].

Catharanthine (20 mg/kg; ip; for 14 consecutive days) Tartrate increases swimming time and decreases immobility time at D7 or D14 in mice^[1].

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

Animal Model:	13-week-old male SpragueDawley rats (300-350 g) ^[1]
Dosage:	0.5-20 mg/kg
Administration:	IV; single dose
Result:	Evoked rapid, transient reductions in BP and HR (lasting ,2 minutes) at low doses (0.5–5 mg/kg), whereas at higher doses (10 and 20 mg/kg), the BP and HR reductions were sustained.

REFERENCES

[1]. Hugo R Arias, et al. (+)-Catharanthine and (-)-18-methoxycoronaridine induce antidepressant-like activity in mice by differently recruiting serotonergic and norepinephrinergic neurotransmission. *Eur J Pharmacol.* 2023 Jan 15;939:175454.

[2]. Jadhav A, et al. Catharanthine dilates small mesenteric arteries and decreases heart rate and cardiac contractility by inhibition of voltage-operated calcium channels on vascular smooth muscle cells and cardiomyocytes. *J Pharmacol Exp Ther.* 2013 Jun;345(3):383-92.

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