



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

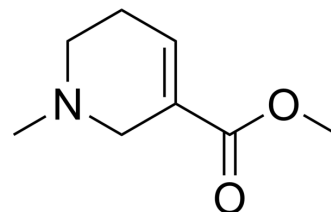
mail@szabo-scandic.com

www.szabo-scandic.com

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

Arecoline

Cat. No.:	HY-N2364
CAS No.:	63-75-2
Molecular Formula:	C ₈ H ₁₃ NO ₂
Molecular Weight:	155.19
Target:	mAChR; nAChR
Pathway:	GPCR/G Protein; Neuronal Signaling; Membrane Transporter/Ion Channel
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro	H ₂ O : 250 mg/mL (1610.93 mM; Need ultrasonic) DMSO : 100 mg/mL (644.37 mM; Need ultrasonic)				
	Preparing Stock Solutions	Solvent Concentration Mass	1 mg	5 mg	10 mg
		1 mM	6.4437 mL	32.2186 mL	64.4371 mL
		5 mM	1.2887 mL	6.4437 mL	12.8874 mL
		10 mM	0.6444 mL	3.2219 mL	6.4437 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 (16.11 mM); Clear solution				
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (16.11 mM); Clear solution				
	3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (16.11 mM); Clear solution				

BIOLOGICAL ACTIVITY

Description	Arecoline, a naturally occurring psychoactive alkaloid, is a partial agonist of nicotinic and muscarinic acetylcholine receptor. Arecoline exhibits stimulation, alertness, anxiolysis and anti-parasitic effects. Arecoline also can induce oxidative stress ^{[1][2][3][4]} .
IC ₅₀ & Target	nAChR/mAChR ^[3]
In Vitro	Arecoline induces the generation of reactive oxygen species and cell cycle arrest at the G1/G0 phase in HaCaT cells without affecting the expression of p21/Cip1. Arecoline-induced epithelial cell death at higher concentrations is caused by oxidative

trauma without eliciting apoptosis. Arecoline upregulates the expression of the following stress-responsive genes: hemeoxygenase-1; ferritin light chain; glucose-6-phosphate dehydrogenase; glutamatecysteine ligase catalytic subunit; and glutathione reductase^[1].

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

CUSTOMER VALIDATION

- Int J Mol Sci. 2023 Mar 28.
- J Oral Pathol Med. 2022 Sep 2.

See more customer validations on www.MedChemExpress.com

REFERENCES

- [1]. G S Thangjam, et al. Regulation of oxidative-stress responsive genes by arecoline in human keratinocytes. J Periodontal Res. 2009 Oct;44(5):673-82.
- [2]. Liu YJ, et, al. The pharmacology, toxicology and potential applications of arecoline: a review. Pharm Biol. 2016 Nov;54(11):2753-2760.
- [3]. Volgin AD, et, al. DARK Classics in Chemical Neuroscience: Arecoline. ACS Chem Neurosci. 2019 May 15;10(5):2176-2185.
- [4]. Kuo TM, et, al. Arecoline induces TNF-alpha production and Zonula Occludens-1 redistribution in mouse Sertoli TM4 cells. J Biomed Sci. 2014 Sep 9;21(1):93.

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