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Lieferung & Zahlungsart

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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

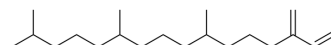
mail@szabo-scandic.com

www.szabo-scandic.com

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

Neophytadiene

Cat. No.:	HY-N8534
CAS No.:	504-96-1
Molecular Formula:	C ₂₀ H ₃₈
Molecular Weight:	278.52
Target:	Others
Pathway:	Others
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 12.5 mg/mL (44.88 mM); ultrasonic and warming and heat to 60°C

Concentration	Solvent	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	3.5904 mL	17.9520 mL	35.9041 mL
	5 mM	0.7181 mL	3.5904 mL	7.1808 mL
	10 mM	0.3590 mL	1.7952 mL	3.5904 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

Neophytadiene is a diterpene found in *Turbinaria ornata*, with anti-inflammatory antioxidant and cardioprotective properties^[1].

In Vitro

Neophytadiene has cytotoxic on RAW 264.7 cells with an IC₅₀ of 50 μM^[1].
 Neophytadiene (50-100 μM; 30 min) successfully inhibits the NO production level and downregulates inducible nitric oxide synthase (iNOS) production in LPS (1 μg/mL)-induced RAW264.7 cells^[1].
 Neophytadiene (25-100 μM; 22 hours) significantly inhibits the NO production and inflammatory cytokines TNF-α, IL-6 and IL-10 and IL-10 in LPS (1 μg/mL)-induced RAW264.7 cells^[1].
 MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

Neophytadiene (50 mg/kg; p.o.; daily; for 7 days) shows dose-dependent reduction in the alanine aminotransferase (ALT) level^[1].
 Neophytadiene (25-50 mg/kg; p.o.; daily; for 7 days) significantly reduces LPS (10 mg/kg)-increased IL-6 and IL-10 levels and in heart tissue^[1].
 Neophytadiene (25-50 mg/kg; p.o.; daily; for 7 days) significantly reduces LPS (10 mg/kg)-increased PGE2 mRNA expression in heart tissue^[1].
 Neophytadiene significantly inhibits LPS (10 mg/kg)-induced NO production and inflammatory cytokines TNF-α, IL-6 and IL-

10 and IL-10 in vivo^[1].

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

Animal Model:	Adult male Sprague Dawley rats (6-8 weeks) ^[1]
Dosage:	12 mg/kg, 25 mg/kg, 50 mg/kg
Administration:	Oral administration, daily, for 7 days
Result:	Decreased haemoglobin (HGB) level, ALT level, and heart tissue TNF- α , IL1 β , NF- κ B, iNOS, PI3k/AktandMAPK in LPS (10 mg/kg)-treat rats.

REFERENCES

[1]. Meenakshi Bhardwaj, et al. Neophytadiene from *Turbinaria ornata* Suppresses LPS-Induced Inflammatory Response in RAW 264.7 Macrophages and Sprague Dawley Rats. *Inflammation*. 2020 Jun;43(3):937-950.

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