Dehydroevodiamine

Cat. No.: HY-N2106

CAS No.: 67909-49-3

Molecular Formula: $C_{19}H_{15}N_3O$

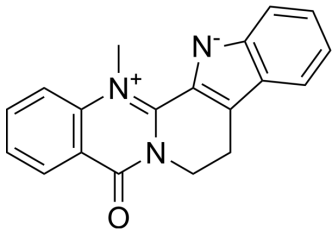
Molecular Weight: 301.34

Target: NF-κB; COX; PGE synthase; NO Synthase

Pathway: NF-κB; Immunology/Inflammation

Storage: 4°C, protect from light

* In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 8.33 mg/mL (27.64 mM; Need ultrasonic)

Preparing Stock Solutions	Concentration / Solvent / Mass	1 mg	5 mg	10 mg
	1 mM	3.3185 mL	16.5926 mL	33.1851 mL
	5 mM	0.6637 mL	3.3185 mL	6.6370 mL
	10 mM	0.3319 mL	1.6593 mL	3.3185 mL

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

In Vivo

1. Add each solvent one by one: 0.5% CMC-Na/saline water
   Solubility: 10 mg/mL (33.19 mM); Suspended solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description

Dehydroevodiamine is a major bioactive quinazoline alkaloid isolated from Evodiae Fructus, has an antiarrhythmic effect in guinea-pig ventricular myocytes[1]. Dehydroevodiamine inhibits LPS-induced iNOS, COX-2, prostaglandin E2 (PGE2) and nuclear factor-kappa B (NF-κB) expression in murine macrophage cells[2].

IC_{50} & Target

iNOS

In Vitro

Dehydroevodiamine (0-50 μM; 2 hours) inhibits iNOS and COX-2 expression and prevents degradation of IκB-α in LPS induced RAW 264.7 macrophages[2].
Dehydroevodiamine (0-50 μM; 2 hours) inhibits a LPS-induced increase in the iNOS and COX-2 mRNA expression[2].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Western Blot Analysis[2]

Cell Line:	RAW 264.7 macrophage cells

Concentration:	10 μM, 30 μM, 50 μM
Incubation Time:	pretreated 2 hours
Result:	Reduced iNOS and COX-2 expression and increased IκB-α expression.

RT-PCR[2]

Cell Line:	RAW 264.7 macrophage cells
Concentration:	10 μM, 30 μM, 50 μM
Incubation Time:	pretreated 2 hours
Result:	Reduced iNOS and COX-2 mRNA expression.

REFERENCES

[1]. Loh SH, et al. Antiarrhythmic effects of dehydroevodiamine in isolated human myocardium and cardiomyocytes. J Ethnopharmacol. 2014 May 14;153(3):753-62.

[2]. Noh EJ, et al. Inhibition of lipopolysaccharide-induced iNOS and COX-2 expression by dehydroevodiamine through suppression of NF-kappaB activation in RAW 264.7 macrophages. Life Sci. 2006 Jul 10;79(7):695-701. Epub 2006 Mar 6.

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