Docebenone

Cat. No.: HY-12886

CAS No.: 80809-81-0

Molecular Formula: $C_{21}H_{26}O_3$

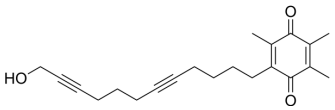
Molecular Weight: 326.43

Target: Lipoxygenase; Ferroptosis

Pathway: Metabolic Enzyme/Protease; Apoptosis

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	2 years
	-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : 250 mg/mL (765.86 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	3.0634 mL	15.3172 mL	30.6344 mL
	5 mM	0.6127 mL	3.0634 mL	6.1269 mL
	10 mM	0.3063 mL	1.5317 mL	3.0634 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: ≥ 6.25 mg/mL (19.15 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Docebenone (AA 861) is a potent, selective and orally active 5-LO (5-lipoxygenase) inhibitor.

IC_{50} & Target

5-LO

In Vitro

Treatment of trichomonads with the 5-LO inhibitor Docebenone, significantly inhibits the ability of trichomonads to secrete LTB_4 compared to results for trichomonads treated with medium. Docebenone strongly abolishes the stimulatory effect of TvSP on IL-8 production[1]. Docebenone at 10-200 μM increases $[Ca^{2+}]_i$ concentration dependently[2].

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

In Vivo

Docebenone might protect experimental acute necrotizing pancreatitis in rats[3]. Docebenone suppresses the release of SRS-A by 55-97%, dose-dependently in doses of 10^{-8}-10^{-5} M in monkeys. The antigen-induced SRS-A release from these fragments is dose dependently inhibited by 25-93% of Docebenone, with doses of 10^{-8}-10^{-5} M[4].

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

PROTOCOL

Animal Administration [3]

Rats[3]

Pancreatitis is induced in rats by retrograde injection of 0.4 mL/kg body wt of 6% taurocholic acid into the pancreatic duct. The animals are divided into three groups: control group; administered Docebenone in a single dose of 30 mg/kg; and administered Docebenone in a single dose of 60 mg/kg. The following parameters are examined: serum amylase, lipase, trypsin, blood sugar, and survival rate[3].

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

REFERENCES

[1]. Nam YH, et al. Leukotriene B(4) receptors BLT1 and BLT2 are involved in interleukin-8 production in human neutrophils induced by Trichomonas vaginalis-derived secretory products. Inflamm Res. 2012 Feb;61(2):97-102.

[2]. Huang JK, et al. AA-861-induced Ca(2+) mobilization in Madin Darby canine kidney cells. Toxicol Appl Pharmacol. 1999 Dec 1;161(2):202-8.

[3]. Kiriyama M, et al. Protective effect of AA-861 (5-lipoxygenase inhibitor) on experimental acute necrotizing pancreatitis in rats. Int J Pancreatol. 1993 Jun;13(3):201-8.

[4]. Yamamura H, et al. Effect of AA-861, a selective 5-lipoxygenase inhibitor, on models of allergy in several species. Jpn J Pharmacol. 1988 Jul;47(3):261-71.

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