NMI 8739

Cat. No.: HY-101540

CAS No.: 129024-87-9

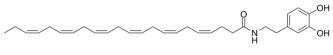
Molecular Formula: $C_{30}H_{41}NO_3$

Molecular Weight: 463.65

Target: Dopamine Receptor

Pathway: GPCR/G Protein; Neuronal Signaling

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



SOLVENT & SOLUBILITY

In Vitro

Ethanol : 100 mg/mL (215.68 mM; Need ultrasonic)
DMSO : 65 mg/mL (140.19 mM; Need ultrasonic)

Preparing Stock Solutions

Concentration \ Solvent \ Mass	1 mg	5 mg	10 mg
1 mM	2.1568 mL	10.7840 mL	21.5680 mL
5 mM	0.4314 mL	2.1568 mL	4.3136 mL
10 mM	0.2157 mL	1.0784 mL	2.1568 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 (5.39 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (5.39 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

NMI 8739 is a dopamine D_2 autoreceptor agonist, which is an amine conjugate of the DHA carrier and the neurotransmitter dopamine.

In Vitro

NMI 8739 is a dopamine D_2 autoreceptor agonist[1], which is an amine conjugate of the DHA carrier and the neurotransmitter dopamine[2]. NMI 8739 reduces nitric oxide (NO) production in LPS-stimulated RAW264.7 Macrophages. NMI 8739 elicits concentration-dependent suppression of CCL-20, MCP-1 and IL-6 Release in RAW264.7 macrophages after LPS-stimulation. Production of PGE2 is concentration-dependently suppressed with a reduction of 25.3% at 100 nM NMI 8739 and a 75% reduction for 1 μM NMI 8739. 2 μM NMI 8739 significantly inhibits IL-6 and CCL-20 release up to 49% and 37%, respectively[3].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Gill Higgins, New drugs signal rapid growth of anti-obesity drug market. RESEARCH & DEVELOPMENT. 2 Nov 11K16 No. 1061

[2]. Shashoua VE, et al. N-docosahexaenoyl, 3 hydroxytyramine: a dopaminergic compound that penetrates the blood-brain barrier and suppresses appetite. Life Sci. 1996;58(16):1347-57.

[3]. Wang Y, et al. N-Docosahexaenoyl Dopamine, an Endocannabinoid-like Conjugate of Dopamine and the n-3 Fatty Acid Docosahexaenoic Acid, Attenuates Lipopolysaccharide-Induced Activation of Microglia and Macrophages via COX-2. ACS Chem Neurosci. 2017 Mar 15;8

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