

N-Arachidonyldopamine

Chemical Properties

CAS No. : 199875-69-9

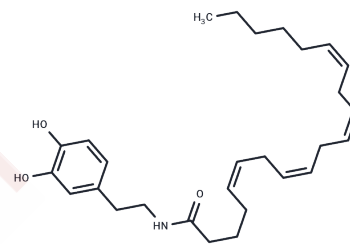
Formula: C₂₈H₄₁NO₃

Molecular Weight: 439.63

Keep away from direct sunlight, Store at low temperature

Storage: Pure form: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



Biological Description

Description	N-Arachidonyldopamine (NADA) is a selective and potent endogenous CB1 receptor agonist (K _i : 250 nM). N-Arachidonyldopamine is also a potent and selective TRPV1 agonist with an EC ₅₀ value of ~50 nM.
Targets(IC50)	Cannabinoid Receptor, TRP/TRPV Channel

Solubility Information

Solubility	DMSO: 100 mg/mL (227.46 mM), Sonication is recommended. Ethanol: 4.5 mg/mL (10.24 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 4 mg/mL (9.1 mM), Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.2746 mL	11.3732 mL	22.7464 mL
5 mM	0.4549 mL	2.2746 mL	4.5493 mL
10 mM	0.2275 mL	1.1373 mL	2.2746 mL
50 mM	0.0455 mL	0.2275 mL	0.4549 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Bisogno T, et al. N-acyl-dopamines: novel synthetic CB(1) cannabinoid-receptor ligands and inhibitors of anandamide inactivation with cannabimimetic activity in vitro and in vivo. *Biochem J.* 2000 Nov 1;351 Pt 3(Pt 3): 817-24.

Sha X, Lin J, Wu K, et al. The TRPV1-PKM2-SREBP1 axis maintains microglial lipid homeostasis in Alzheimer's disease. *Cell Death & Disease.* 2025, 16(1): 14.

The TRPV1-PKM2-SREBP1 axis maintains microglial lipid homeostasis in Alzheimer's disease[J]. *Cell Death & Disease*, 2025, 16(1): 14.

Huang SM, et al. An endogenous capsaicin-like substance with high potency at recombinant and native vanilloid VR1 receptors. *Proc Natl Acad Sci U S A.* 2002 Jun 11;99(12):8400-5.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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