

AM404

Chemical Properties

CAS No. : 183718-77-6

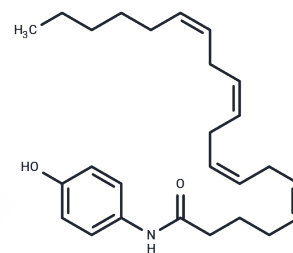
Formula: C₂₆H₃₇NO₂

Molecular Weight: 395.58

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	AM404 is an endocannabinoid reuptake inhibitor, a TRPV(1) activator, a paracetamol metabolite, with neuroprotective and anticancer activity that blocks anandamide transport. AM404 inhibits NFAT and NF-kappaB signaling pathways and impairs migration and invasiveness of neuroblastoma cells, preventing prostaglandin synthesis in activated microglia by inhibiting COX activity.
Targets(IC50)	Cannabinoid Receptor,Others,TRP/TRPV Channel
In vitro	At the concentration used to block cellular accumulation of the endogenous cannabinoid anandamide, AM404 nonspecifically inhibited the proliferation of C6 glioma cells, with an IC50 = 4.9 μM for C6 glioma cells. [2]
In vivo	Intraperitoneal injections of 1-5 mg/kg AM404 showed dose-dependent anxiolytic-like effects in the elevated cross maze, defensive withdrawal, and separation-induced ultrasonic vocalizations, the three models. Intraperitoneal injection of 2.5-10 mg/kg AM404 resulted in a dose-dependent increase in anandamide levels in the prefrontal cortex, hippocampus and thalamus of adult male Sprague-Dawley rats. [2]

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.5279 mL	12.6397 mL	25.2793 mL
5 mM	0.5056 mL	2.5279 mL	5.0559 mL
10 mM	0.2528 mL	1.264 mL	2.5279 mL
50 mM	0.0506 mL	0.2528 mL	0.5056 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

A Giuffrida, et al. Mechanisms of endocannabinoid inactivation: biochemistry and pharmacology. *J Pharmacol Exp Ther.* 2001 Jul;298(1):7-14.

Kent-Olov Jonsson, et al. AM404 and VDM 11 non-specifically inhibit C6 glioma cell proliferation at concentrations used to block the cellular accumulation of the endocannabinoid anandamide. *Arch Toxicol.* 2003 Apr;77(4):201-7.

Marco Bortolato, et al. Anxiolytic-like properties of the anandamide transport inhibitor AM404. *Neuropsychopharmacology.* 2006 Dec;31(12):2652-9.

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