

PRODUCT INFORMATION

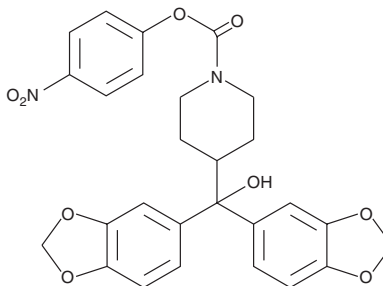


JZL 184

Item No. 13158

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CAS Registry No.: 1101854-58-3
Formal Name: 4-nitrophenyl-4-(dibenzo[d][1,3]dioxol-5-yl(hydroxy)methyl)piperidine-1-carboxylate
MF: C₂₇H₂₄N₂O₉
FW: 520.5
Purity: ≥97%
UV/Vis.: λ_{max}: 284 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

JZL 184 is supplied as a crystalline solid. A stock solution may be made by dissolving the JZL 184 in the solvent of choice, which should be purged with an inert gas. JZL 184 is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of JZL 184 in these solvents is approximately 10 and 30 mg/ml, respectively.

Description

Endocannabinoids such as 2-arachidonoyl glycerol (2-AG) and arachidonoyl ethanolamide (AEA) are biologically active lipids that are involved in a number of synaptic processes including activation of cannabinoid receptors. Monoacylglycerol lipase (MAGL) is a serine hydrolase responsible for the hydrolysis of 2-AG to arachidonic acid and glycerol, thus terminating its biological function. JZL 184 is a potent and selective inhibitor of MAGL that displays IC₅₀ values of 8 nM and 4 μM for inhibition of MAGL and fatty acid amide hydrolase in mouse brain membranes, respectively.¹ When administered to mice at 16 mg/kg, intraperitoneally, JZL 184 reduces MAGL activity by 85%, elevates brain 2-AG levels by 8-fold, and elicits analgesic activity in a variety of pain assays that qualitatively mimics direct central cannabinoid (CB₁) agonists.¹

Reference

1. Long, J.Z., Li, W., Booker, L., *et al.* Selective blockade of 2-arachidonoylglycerol hydrolysis produces cannabinoid behavioral effects. *Nature Chemical Biology* 5(1), 37-44 (2009).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897

[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM