

PRODUCT INFORMATION

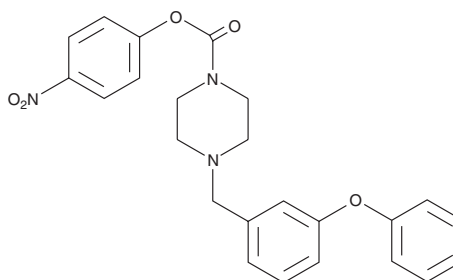


JZL 195

Item No. 13668

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CAS Registry No.: 1210004-12-8
Formal Name: 4-nitrophenyl-4-(3-phenoxybenzyl) piperazine-1-carboxylate
MF: C₂₄H₂₃N₃O₅
FW: 433.5
Purity: ≥98%
UV/Vis.: λ_{max}: 273 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 195 is supplied as a crystalline solid. A stock solution may be made by dissolving the JZL 195 in the solvent of choice, which should be purged with an inert gas. JZL 195 is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of JZL 195 in these solvents is approximately 1.25 and 5 mg/ml, respectively.

Description

Fatty acid amide hydrolase (FAAH) and monoacylglycerol lipase (MAGL) mediate the hydrolysis of the endocannabinoids arachidonoyl ethanolamide (AEA) and 2-arachidonoyl glycerol (2-AG), respectively. JZL 195 is a potent inhibitor of both FAAH and MAGL (IC₅₀s = 2 and 4 nM, respectively).¹ It poorly inhibits neuropathy target esterase and ABHD6 and does not inhibit other brain serine hydrolases. JZL 195 displays time-dependent inhibition of FAAH and MAGL *in vivo*, consistent with a covalent mechanism of activation.¹ The *in vivo* inhibitory actions of JZL 195 against FAAH and MAGL are comparable to those of the selective inhibitors PF-3845 (Item No. 13279) and JZL 184 (Item No. 13158), respectively.¹ Through its inhibitory actions, JZL 195 simultaneously augments brain levels of AEA and 2-AG, producing antinociceptive, cataleptic, and hypomotility effects like those produced by direct CB₁ agonists.¹

Reference

1. Long, J.Z., Nomura, D.K., Vann, R.E., *et al.* Dual blockade of FAAH and MAGL identifies behavioral processes regulated by endocannabinoid crosstalk *in vivo*. *PNAS* **106**(48) 20270-20275 (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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