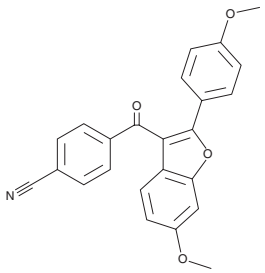
PRODUCT INFORMATION

LY320135

Item No. 11738

CAS Registry No.:	176977-56-3
Formal Name:	4-[[6-methoxy-2-(4-methoxyphenyl)-3-benzofuranyl]carbonyl]-benzonitrile
MF:	$C_{24}H_{17}NO_4$
FW:	383.4
Purity:	≥98%
UV/Vis.:	λ_{max}: 247, 302, 364 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

LY320135 is supplied as a crystalline solid. A stock solution may be made by dissolving the LY320135 in the solvent of choice. LY320135 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of LY320135 in ethanol is approximately 0.2 mg/ml and approximately 25 mg/ml in DMSO and DMF.

LY320135 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, LY320135 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. LY320135 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

LY320135 is a selective cannabinoid (CB) receptor 1 antagonist (K_is = 224 and >10,000 nM for CB_1 and CB_2, respectively, *in vitro*).[1] It is selective for CB_1 over α_1- and α_2- adrenergic, D_1 and D_2 dopamine, benzodiazepine, histamine H_1, GABA, serotonin (5-HT), and muscarinic receptors. It reverses the inhibition of forskolin-induced cAMP accumulation induced by arachidonoyl ethanolamide (anandamide; Item No. 90050) in CHO cells and inhibits a stimulatory effect of arachidonoyl ethanolamide on adenylate cyclase induced by application of pertussis toxin (IC_{50} = 734 nM). LY320135 (1 mg/kg) reverses inhibition of light-induced phase shifts in hamsters induced by the CB_1 agonist CP 55,940 (Item No. 90084).[2]

References

1. Felder, C.C., Joyce, K.E., Briley, E.M., *et al*. LY320135, a novel cannabinoid CB1 receptor antagonist, unmasks coupling of the CB1 receptor to stimulation of cAMP accumulation. *J. Pharmacol. Exp. Ther.* **284(1)**, 291-297 (1998).
2. Sanford, A.E., Castillo, E., and Gannon, R.L. Cannabinoids and hamster circadian activity rhythms. *Brain Res.* **1222**, 141-148 (2008).

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