TOCRIS
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Print Date: Jan 13th 2016

Certificate of Analysis

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Product Name: **LY 320135** **Catalog No.: 2387** **Batch No.: 2**

CAS Number: 176977-56-3

IUPAC Name: 4-[[6-Methoxy-2-(4-methoxyphenyl)-3-benzofuranyl]carbonyl]benzonitrile

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{24}H_{17}NO_4.¾H_2O$

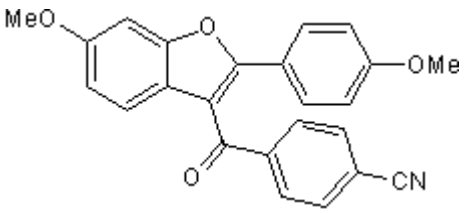
Batch Molecular Weight: 396.91

Physical Appearance: Yellow solid

Solubility: DMSO to 30 mM

Storage: Store at RT

Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.2 (Diethyl ether:Petroleum ether [2:1])

HPLC: Shows >98.9% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	72.63	4.7	3.53
Found	72.74	4.32	3.48

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Description:

Potent CB_1 receptor antagonist/inverse agonist (K_i = 141 nM) with greater than 70-fold selectivity over CB_2 receptors (K_i > 10 µM). Structurally dissimilar from SR 141716A and AM 251. Shows weak binding to both 5-HT_2 (K_i = 6.4 µM) and muscarinic receptors (K_i = 2.1 µM).

Physical and Chemical Properties:

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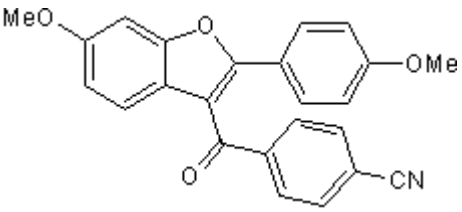
Minimum Purity: >98%

Batch Molecular Structure:



Storage: Store at RT

Solubility & Usage Info:

DMSO to 30 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Felder *et al* (1998) LY320135, a novel cannabinoid CB_1 receptor antagonist, unmasks coupling of the CB_1 receptor to stimulation of cAMP accumulation. J.Pharmacol.Exp.Ther. ***284*** 291. PMID: 9435190.

Holland *et al* (1999) Cannabinoid CB_1 receptors fail to cause relaxation, but couple via G_i/G_o to the inhibition of adenylyl cyclase in carotid artery smooth muscle. Br.J.Pharmacol. ***128*** 597. PMID: 10516638.

Pertwee (2005) Inverse agonism and neutral antagonism at cannabinoid CB_1 receptors. Life Sci. ***76*** 1307. PMID: 15670612.