TOCRIS
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Print Date: Jan 13th 2016

Certificate of Analysis

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Product Name: **LY 2183240** **Catalog No.: 2452** **Batch No.: 2**

CAS Number: 874902-19-9

IUPAC Name: 5-[(1,1'-Biphenyl]-4-yl)methyl]-*N*,*N*-dimethyl-1*H*-tetrazole-1-carboxamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C17H17N5O

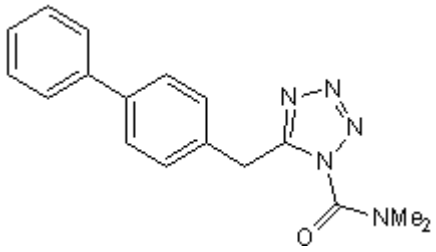
Batch Molecular Weight: 307.35

Physical Appearance: White solid

Solubility: DMSO to 100 mM
ethanol to 50 mM with gentle warming

Storage: Store at +4°C

Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.4 (Chloroform)

HPLC: Shows >99.7% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	66.43	5.57	22.78
Found	66.36	5.61	22.6

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Product Information

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IUPAC Name: 5-[(1,1'-Biphenyl]-4-yl)methyl]-*N*,*N*-dimethyl-1*H*-tetrazole-1-carboxamide

Description:

Novel and highly potent blocker of anandamide uptake (IC_{50} = 270 pM). Inhibits fatty acid amide hydrolase (FAAH) activity (IC_{50} = 12.4 nM). Following i.p. administration in rats, increases brain anandamide concentration and exerts antinociceptive effects in formalin model of pain.

Physical and Chemical Properties:

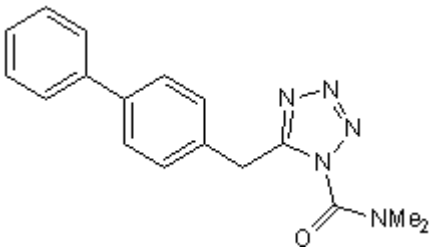
Batch Molecular Formula: $C_{17}H_{17}N_5O$

Batch Molecular Weight: 307.35

Physical Appearance: White solid

Minimum Purity: >98%

Batch Molecular Structure:



Storage: Store at +4°C

Solubility & Usage Info:

DMSO to 100 mM

ethanol to 50 mM with gentle warming

When purchsed as a 1mg unit, this product is supplied as a lyophilized solid and may be very hard to visualize. Solutions should be made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

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:

Moore *et al* (2005) Identification of a high-affinity binding site involved in the transport of endocannabinoids. Proc.Natl.Acad.Sci.USA ***102*** 17852.

Dickason-Chesterfield *et al* (2006) Pharmacological characterization of endocannabinoid transport and fatty acid amide hydrolase inhibitors. Cell Mol.Neurobiol. ***26*** 407. PMID: 16736384.

Alexander and Cravat (2006) The putative endocannabinoid transport blocker LY2183240 is a potent inhibitor of FAAH and several other brain serine hydrolases. J.Am.Chem.Soc. ***128*** 9699. PMID: 16866524.

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