bio-techne
TOCRIS

Print Date: Jul 17th 2025

Certificate of Analysis

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Product Name: **FPL 64176** **Catalog No.: 1403** **Batch No.: 3**

CAS Number: 120934-96-5

IUPAC Name: 2,5-Dimethyl-4-[2-(phenylmethyl)benzoyl]-1*H*-pyrrole-3-carboxylic acid methyl ester

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{22}H_{21}NO_3$

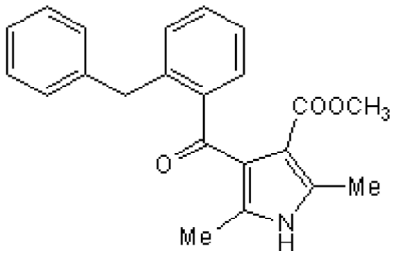
Batch Molecular Weight: 347.41

Physical Appearance: Off White solid

Solubility: ethanol to 25 mM
DMSO to 50 mM

Storage: Store at RT

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 97.8% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	76.06	6.09	4.03
Found	75.55	6.07	3.96

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Description:

FPL 64176 is a potent activator of L-type Ca^{2+} channels (EC_{50} = 16 nM). 40-fold more potent than Bay K 8644 (Cat. No. 1544) as a positive inotrope in guinea pig atria.

Physical and Chemical Properties:

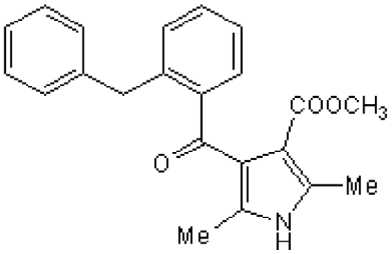
Batch Molecular Formula: $C_{22}H_{21}NO_3$

Batch Molecular Weight: 347.41

Physical Appearance: Off White solid

Minimum Purity: ≥97%

Batch Molecular Structure:



Storage: Store at RT

Solubility & Usage Info:

ethanol to 25 mM
DMSO to 50 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. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

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:

Baxter *et al* (1993) Discovery and synthesis of methyl 2,5-dimethyl-4-[2-(phenylmethyl)benzoyl]-1*H*-pyrrole-3-carboxylate (FPL 64176) and analogues: the first examples of a new class of calcium channel activator. J.Med.Chem. ***36*** 2739. PMID: 7692047.

Rampe *et al* (1993) Comparison of the *in vitro* and *in vivo* cardiovascular effects of two structurally distinct Ca^{++} channel activators, BAY K 8644 and FPL 64176. J.Pharmacol.Exp.Ther. ***265*** 1125. PMID: 7685384.

Zheng *et al* (1991) Pharmacological, radioligand binding, and electrophysiological characteristics of FPL 64176, a novel nondihydropyridine Ca^{2+} channel activator, in cardiac and vascular preparations. Mol.Pharmacol. ***40*** 734. PMID: 1719369.