

Product Name: Anisomycin

CAS Number: 22862-76-6

IUPAC Name: (2*R*,3*S*,4*S*)-2-[(4-Methoxyphenyl)methyl]-3,4-pyrrolidinediol 3-acetate

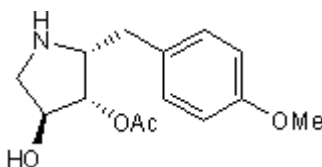
Catalog No.: 1290

Batch No.: 9

EC Number: 245-269-7

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₄H₁₉NO₄
Batch Molecular Weight: 265.31
Physical Appearance: White solid
Solubility: ethanol to 50 mM
DMSO to 100 mM
Storage: Desiccate at +4°C
Batch Molecular Structure:



2. ANALYTICAL DATA

Melting Point: Between 141 - 142°C
HPLC: Shows 98% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	63.38	7.22	5.28
Found	63.52	7.19	5.27

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

Protein synthesis inhibitor (blocks translation). Potent activator of stress-activated protein kinases (JNK/SAPK) and p38 MAP kinase. Acts as a potent signaling agonist to selectively elicit homologous desensitization of immediate early gene induction (c-fos, fosB, c-jun, junB and junD).

Physical and Chemical Properties:

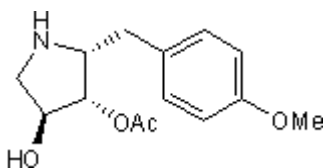
Batch Molecular Formula: C₁₄H₁₉NO₄

Batch Molecular Weight: 265.31

Physical Appearance: White solid

Minimum Purity: >98%

Batch Molecular Structure:



Storage: Desiccate at +4°C

Solubility & Usage Info:

ethanol to 50 mM
DMSO to 100 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:

Cano et al (1994) Anisomycin-activated protein kinases p45 and p55 but not mitogen-activated protein kinases ERK-1 and -2 are implicated in the induction of *c-fos* and *c-jun*. *Mol.Cell.Biol.* **14** 7352. PMID: 7935449.

Kyriakis et al (1994) The stress-activated protein kinase subfamily of c-Jun kinases. *Nature* **369** 156. PMID: 8177321.

Sanchez et al (1994) Role of SAPK/ERK kinase-1 in the stress-activated pathway regulating transcription factor c-Jun. *Nature* **372** 794. PMID: 7997269.

Hazzalin et al (1998) Anisomycin selectively desensitizes signalling components involved in stress kinase activation and *fos* and *jun* induction. *Mol.Cell.Biol.* **18** 1844. PMID: 9528756.

Croons et al (2009) The protein synthesis inhibitor anisomycin induces macrophage apoptosis in rabbit atherosclerotic plaques through p38 mitogen-activated protein kinase. *J.Pharmacol.Exp.Ther.* **329** 856. PMID: 19286921.

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