

Product Name: Imiquimod

Catalog No.: 3700

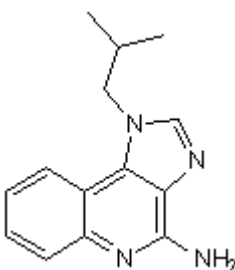
Batch No.: 1

CAS Number: 99011-02-6

IUPAC Name: 1-(2-Methylpropyl)-1*H*-imidazo[4,5-*c*]quinolin-4-amine

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₄H₁₆N₄
Batch Molecular Weight: 240.3
Physical Appearance: White solid
Solubility: DMSO to 5 mM with gentle warming
Storage: Store at +4°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.6% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	69.97	6.71	23.32
Found	69.9	6.88	23.22

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

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Description:

Immunomodulator that displays antiviral and antitumor activity. Acts as a Toll-like receptor 7 (TLR7) agonist; stimulates proinflammatory cytokine production and activates NF- κ B.

Physical and Chemical Properties:

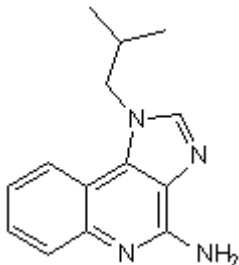
Batch Molecular Formula: C₁₄H₁₆N₄

Batch Molecular Weight: 240.3

Physical Appearance: White solid

Minimum Purity: >99%

Batch Molecular Structure:



Storage: Store at +4°C

Solubility & Usage Info:

DMSO to 5 mM with gentle warming

NOTE: This compound is soluble in DMSO to 10mM, but to achieve this concentration, the solution must be heated at 60°C for 15 minutes.

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:

Syed et al (2001) A review of the applications of imiquimod: a novel immune response modifier. *Exp.Opin.Pharmacother.* **2** 877.

Schon and Schon (2007) The antitumoral mode of action of imiquimod and other imidazoquinolines. *Curr.Med.Chem.* **14** 681. PMID: 17346155.

Averett et al (2007) The pharmacology of endosomal TLR agonists in viral disease. *Biochem.Soc.Trans.* **35** 1468. PMID: 18031247.

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