

Product Name: Resiquimod

Catalog No.: 4536

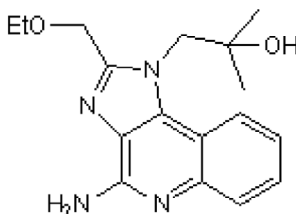
Batch No.: 4

CAS Number: 144875-48-9

IUPAC Name: 1-[4-Amino-2-(ethoxymethyl)-1*H*-imidazo[4,5-*c*]quinolin-1-yl]-2-methylpropan-2-ol

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₇H₂₂N₄O₂.
Batch Molecular Weight: 314.38
Physical Appearance: Off White solid
Solubility: DMSO to 100 mM
 ethanol to 20 mM
Storage: Store at +4°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.8% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	64.95	7.05	17.82
Found	64.78	7.17	17.87

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

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Description:

Resiquimod is a toll-like receptor 7 (TLR7) agonist. Induces upregulation of IL-6, IL-12, IFN- γ and iNOS expression in mouse bone marrow-derived macrophages (BMMs). Inhibits RANKL-induced osteoclast differentiation in mouse BMMs and human peripheral blood monocytes. Also promotes the differentiation of MDSCs into macrophages and dendritic cells. Proinflammatory and antiviral.

Physical and Chemical Properties:

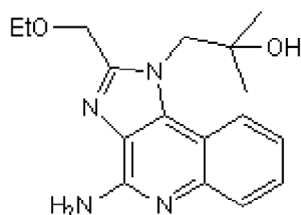
Batch Molecular Formula: C₁₇H₂₂N₄O₂.

Batch Molecular Weight: 314.38

Physical Appearance: Off White solid

Minimum Purity: \geq 98%

Batch Molecular Structure:



Storage: Store at +4°C

Solubility & Usage Info:

DMSO to 100 mM

ethanol to 20 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:

Lee et al (2014) Resiquimod, a TLR7/8 agonist, promotes differentiation of myeloid-derived suppressor cells into macrophages and dendritic cells. *Arch.Pharm.Res.* **37** 1234. PMID: 24748512.

Miyamoto et al (2012) R848, a toll-like receptor 7 agonist, inhibits osteoclast differentiation but not survival or bone-resorbing function of mature osteoclasts. *Cytotechnology.* **64** 331. PMID: 22358541.

Dockrell and Kinghorn (2001) Imiquimod and resiquimod as novel immunomodulators. *J.Antimicrob.Chemother.* **48** 751. PMID: 11733457.

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