

Product Name: ML 347

Catalog No.: 4945

Batch No.: 1

CAS Number: 1062368-49-3

IUPAC Name: 5-[6-(4-Methoxyphenyl)pyrazolo[1,5-a]pyrimidin-3-yl]quinoline

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₂H₁₆N₄O.¼H₂O

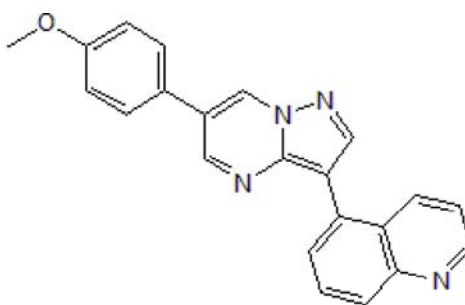
Batch Molecular Weight: 356.89

Physical Appearance: Pale yellow solid

Solubility: DMSO to 20 mM

Storage: Store at +4°C

Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.5 (Chloroform:Methanol [97.5:2.5])

HPLC: Shows 99.6% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	74.04	4.66	15.7
Found	74.33	4.49	15.81

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

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Description:

Potent and selective ALK2 and ALK1 inhibitor (IC₅₀ values are 32 and 46 nM, respectively); displays >200 fold selectivity over ALK3 and ALK6 and >400 fold selectivity over VEGF2. Exhibits no activity at ALK4, ALK5 or in a panel of related kinases. Inhibits BMP4 signaling in a functional assay (IC₅₀ = 152 nM).

Physical and Chemical Properties:

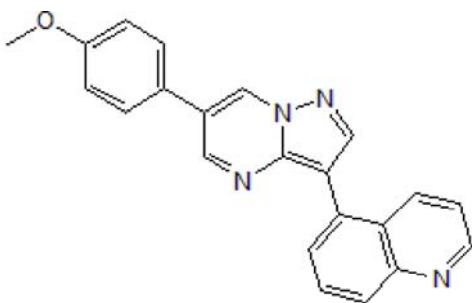
Batch Molecular Formula: C₂₂H₁₆N₄O.¼H₂O

Batch Molecular Weight: 356.89

Physical Appearance: Pale yellow solid

Minimum Purity: >98%

Batch Molecular Structure:



References:

Engers *et al* (2013) Synthesis and structure-activity relationships of a novel and selective bone morphogenetic protein receptor (BMP) inhibitor derived from the pyrazolo[1,5-a]pyrimidine scaffold of dorsomorphin: the discovery of ML347 as an ALK2 versus ALK3 selective MLPCN Bioorg Med Chem Lett. **23** 3248. PMID: 23639540.

Storage: Store at +4°C

Solubility & Usage Info:

DMSO 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. 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.

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