

Certificate of Analysis

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Product Name: STK16-IN-1

Catalog No.: 6036

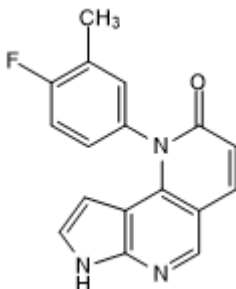
Batch No.: 1

CAS Number: 1223001-53-3

IUPAC Name: 1-(4-Fluoro-3-methylphenyl)-1,7-dihydro-2H-pyrrolo[2,3-*h*]-1,6-naphthyridin-2-one

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₇H₁₂FN₃O
Batch Molecular Weight: 293.3
Physical Appearance: Pale yellow solid
Solubility: DMSO to 100 mM
 ethanol to 10 mM with gentle warming
Storage: Store at +4°C
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.2 (Ethyl acetate:Petroleum ether [4:1])
HPLC: Shows 99.7% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	69.62	4.12	14.33
Found	69.47	4.13	14.12

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

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Description:

Serine/threonine protein kinase 16 (STK16) inhibitor (IC₅₀ = 295 nM). Reduces cell number and increases accumulation of binucleated MCF-1 cells. Enhances cell apoptosis in combination with chemotherapeutics. Also inhibits PI 3-K δ and PI-3-K γ kinases (IC₅₀ values are 856 and 867 nM, respectively) and mTOR kinase (IC₅₀ = 5.56 μ M).

Physical and Chemical Properties:

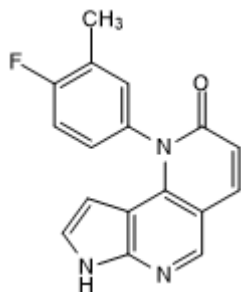
Batch Molecular Formula: C₁₇H₁₂FN₃O

Batch Molecular Weight: 293.3

Physical Appearance: Pale yellow solid

Minimum Purity: >98%

Batch Molecular Structure:



Storage: Store at +4°C

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

Solubility & Usage Info:

DMSO to 100 mM

ethanol to 10 mM with gentle warming

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.

Licensing Information:

Sold under license from Whitehead Institute for Biomedical Research.

References:

Liu *et al* (2016) Discovery of a highly selective STK16 kinase inhibitor ACS.Chem.Biol. **11** 1537. PMID: 27082499.

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