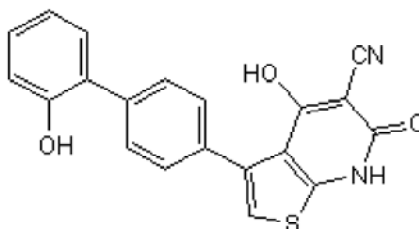


Product Name: A 769662 **Catalog No.:** 3336 **Batch No.:** 8
CAS Number: 844499-71-4
IUPAC Name: 6,7-Dihydro-4-hydroxy-3-(2'-hydroxy[1,1'-biphenyl]-4-yl)-6-oxo-thieno[2,3-b]pyridine-5-carbonitrile

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₀H₁₂N₂O₃S·¾H₂O
Batch Molecular Weight: 373.9
Physical Appearance: Beige solid
Solubility: DMSO to 100 mM
 ethanol to 10 mM
Storage: Store at +4°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 98.4% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	64.25	3.64	7.49
Found	64.4	3.37	7.35

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

Product Name:	A 769662	Catalog No.:	3336	8
CAS Number:	844499-71-4			
IUPAC Name:	6,7-Dihydro-4-hydroxy-3-(2'-hydroxy[1,1'-biphenyl]-4-yl)-6-oxo-thieno[2,3-b]pyridine-5-carbonitrile			

Description:

A 769662 is a potent, reversible AMP-activated protein kinase (AMPK) activator (EC₅₀ = 0.8 μM) that displays selectivity towards β1 subunit-containing heterotrimers. Inhibits fatty acid synthesis (IC₅₀ = 3.2 μM) and decreases plasma glucose and triglyceride levels in vivo. Also inhibits proliferation of mesenchymal stem cells, and impedes reprogramming of mouse embryonic fibroblasts to iPSCs. Activates autophagy.

Physical and Chemical Properties:

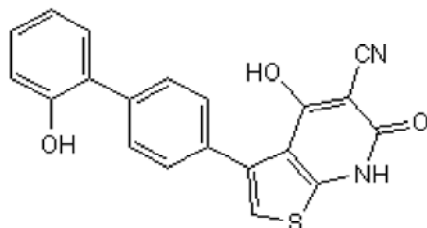
Batch Molecular Formula: C₂₀H₁₂N₂O₃S.¼H₂O

Batch Molecular Weight: 373.9

Physical Appearance: Beige solid

Minimum Purity: ≥98%

Batch Molecular Structure:



References:

Galluzzi et al (2017) Pharmacological modulation of autophagy: therapeutic potential and persisting obstacles. *Nat.Rev.Drug.Discov.* PMID: 28529316.

Duca et al (2015) MetF. activates a duodenal Ampk-dependent pathway to lower hepatic glucose production in rats. *Nat.Med.* **21** 506. PMID: 25849133 .

de Meester et al (2014) Role of AMP-activated protein kinase in regulating hypoxic survival and proliferation of mesenchymal stem cells. *Cardiovasc.Res.* **101** 20. PMID: 24104879.

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

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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