

Certificate of Analysis

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Product Name: GDC 0941

Catalog No.: 8905

Batch No.: 1

CAS Number: 957054-30-7

IUPAC Name: 2-(1*H*-Indazol-4-yl)-6-[[4-(methylsulfonyl)-1-piperazinyl]methyl]-4-(4-morpholinyl)-thieno[3,2-*d*]pyrimidine

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₃H₂₇N₇O₃S₂·2H₂O

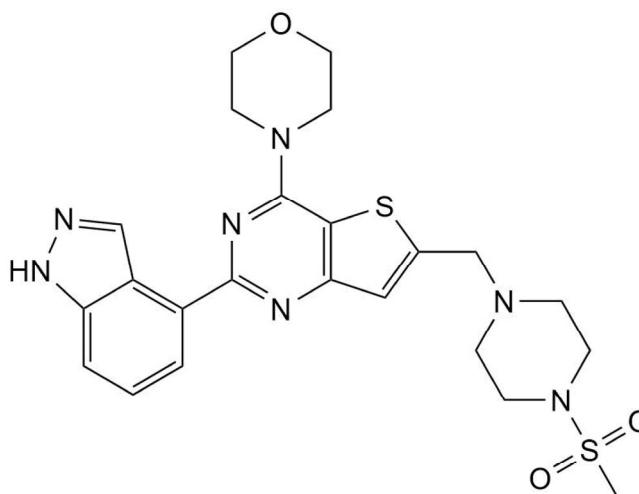
Batch Molecular Weight: 549.67

Physical Appearance: White solid

Solubility: DMSO to 100 mM

Storage: Store at -20°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 50.26 5.68 17.84

Found 49.43 5.75 17.45

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

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Description:

GDC 0941 is a potent pan PI3K inhibitor of class I catalytic subunits p110 α , δ , β , and γ (IC₅₀ values are 3, 3, 33 and 75 nM, respectively). GDC 0941 inhibits the PI3K/AKT/mTOR signaling pathways and tumor cell growth in vitro and in vivo. GDC 0941 can be used in stem cell differentiation protocols to generate artery and vein endothelial cells from PSCs. GDC 0941 is orally bioavailable.

Physical and Chemical Properties:

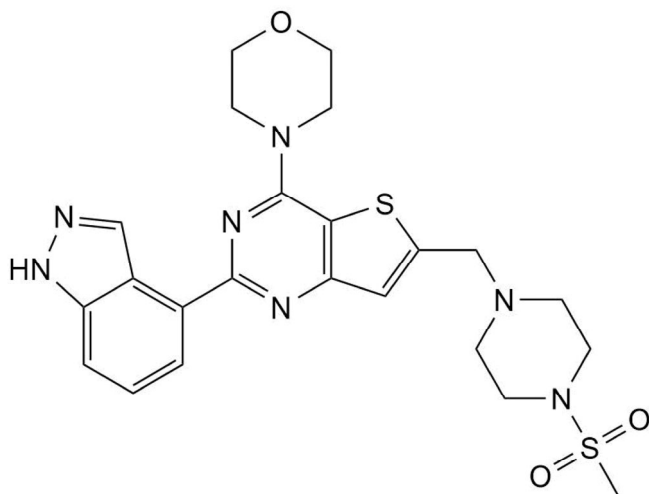
Batch Molecular Formula: C₂₃H₂₇N₇O₃S₂·2H₂O

Batch Molecular Weight: 549.67

Physical Appearance: White solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

DMSO to 100 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:

Loh *et al* (2025) Protocol for efficient generation of human artery and vein endothelial cells from pluripotent stem cells. *STAR Protoc.* **6** 103494. PMID: 39705146.

Ang *et al* (2022) Generating human artery and vein cells from pluripotent stem cells highlights the arterial tropism of Nipah and Hendra viruses. *Cell* **185** 2523. PMID: 35738284.

Folkes *et al* (2008) The identification of 2-(1*H*-indazol-4-yl)-6-(4-methanesulfonyl-piperazin-1-ylmethyl)-4-morpholin-4-yl-thieno[3,2-*d*]pyrimidine (GDC-0941) as a potent, selective, orally bioavailable inhibitor of class I PI3 kinase for the treatment of cancer. *J.Med.Chem.* **51** 5522. PMID: 18754654.

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