

Product Name: PFK 15

Catalog No.: 5339

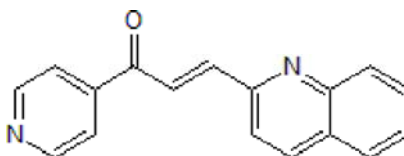
Batch No.: 1

CAS Number: 4382-63-2

IUPAC Name: 1-(4-Pyridinyl)-3-(2-quinolinyl)-2-propen-1-one

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₇H₁₂N₂O
Batch Molecular Weight: 260.29
Physical Appearance: Beige solid
Solubility: DMSO to 100 mM
 ethanol to 10 mM
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.5% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	78.44	4.65	10.76
Found	78.37	4.7	10.75

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

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IUPAC Name: 1-(4-Pyridinyl)-3-(2-quinolinyl)-2-propen-1-one

Description:

Originally reported to be a selective PFKFB3 inhibitor ($IC_{50} = 207$ nM); a more recent report failed to demonstrate activity in a PFKFB3 kinase assay. Selective for PFKFB3 over a panel of 96 kinases. Reduces glucose uptake and induces apoptosis in H522 lung adenocarcinoma and Jurkat T cell leukemia cells. Suppresses glucose uptake and tumor growth, and inhibits metastasis of Lewis lung carcinoma cell xenografts in mice.

Physical and Chemical Properties:

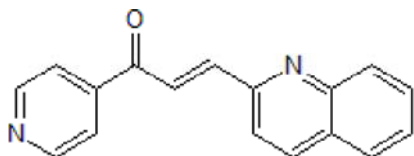
Batch Molecular Formula: $C_{17}H_{12}N_2O$

Batch Molecular Weight: 260.29

Physical Appearance: Beige solid

Minimum Purity: >99%

Batch Molecular Structure:



References:

Brooke et al (2014) Targeting the Warburg effect in cancer; relationships for 2-arylpyridazinones as inhibitors of the key glycolytic enzyme 6-phosphofructo-2-kinase/2,6-bisphosphatase 3 (PFKFB3). *Bioorg.Med.Chem.* **22** 1029. PMID: 24398380 .

Clem et al (2013) Targeting 6-phosphofructo-2-kinase (PFKFB3) as a therapeutic strategy against cancer. *Mol.Cancer Ther.* **12** 1461. PMID: 23674815.

Storage: Store at -20°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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