

Product Name: GW 843682X

Catalog No.: 2977

Batch No.: 2

CAS Number: 660868-91-7

IUPAC Name: 5-(5,6-Dimethoxy-1*H*-benzimidazol-1-yl)-3-[[2-(trifluoromethyl)phenyl]methoxy]-2-thiophenecarboxamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₂H₁₈F₃N₃O₄S·½H₂O

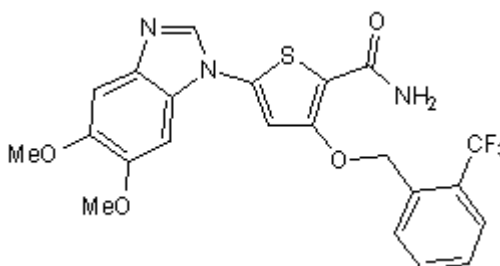
Batch Molecular Weight: 481.96

Physical Appearance: Pale yellow solid

Solubility: DMSO to 75 mM
ethanol to 5 mM

Storage: Desiccate at +4°C

Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.33 (Dichloromethane:Methanol [9:1])

HPLC: Shows 98.4% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	54.83	3.87	8.72
Found	54.75	3.51	8.32

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Description:

Selective inhibitor of polo-like kinase 1 (PLK1) and polo-like kinase 3 (PLK3) (IC₅₀ values are 2.2 and 9.1 nM respectively). Displays > 100-fold selectivity over ~30 other kinases tested including cdk1 and cdk2. Inhibits proliferation of most tumor cells in vitro and is selective over normal diploid fibroblasts.

Physical and Chemical Properties:

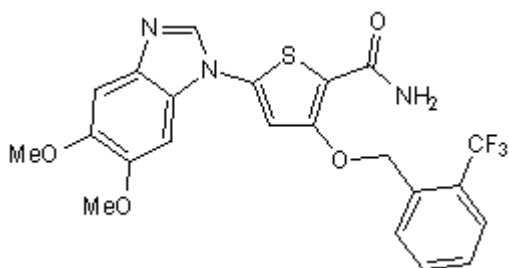
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Batch Molecular Weight: 481.96

Physical Appearance: Pale yellow solid

Minimum Purity: >98%

Batch Molecular Structure:



Storage: Desiccate at +4°C

Solubility & Usage Info:

DMSO to 75 mM

ethanol to 5 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.

References:

Lansing et al (2007) *In vitro* biological activity of a novel small-molecule inhibitor of polo-like kinase 1. *Mol.Cancer Ther.* **6** 450. PMID: 17267659.

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