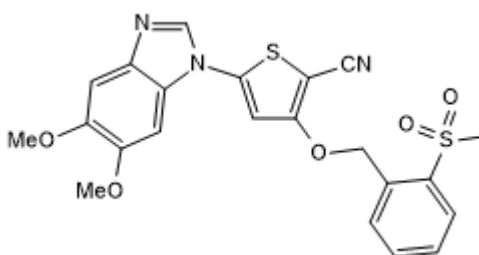


**Product Name:** GSK 319347A **Catalog No.:** 5672 **Batch No.:** 1  
**CAS Number:** 862812-98-4  
**IUPAC Name:** 5-(5,6-Dimethoxy-1*H*-benzimidazol-1-yl)-3-[[2-(methylsulfonyl)phenyl]methoxy]-2-thiophenecarbonitrile

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>22</sub>H<sub>19</sub>N<sub>3</sub>O<sub>5</sub>S<sub>2</sub>·¼H<sub>2</sub>O  
**Batch Molecular Weight:** 474.03  
**Physical Appearance:** Pale yellow solid  
**Solubility:** DMSO to 100 mM  
**Storage:** Store at -20°C  
**Batch Molecular Structure:**



**2. ANALYTICAL DATA**

**TLC:** R<sub>f</sub> = 0.25 (Dichloromethane:Methanol [9:1])  
**HPLC:** Shows 98.1% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure  
**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	55.74	4.15	8.86
Found	55.59	4.27	8.87

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**Description:**

Potent and selective IKKε inhibitor (pIC<sub>50</sub> = 7.4). Exhibits >100-fold selectivity for IKKε over IKKα IKKβ, and a range of other kinases.

**Physical and Chemical Properties:**

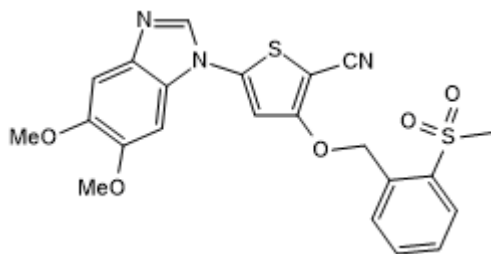
Batch Molecular Formula: C<sub>22</sub>H<sub>19</sub>N<sub>3</sub>O<sub>5</sub>S<sub>2</sub>·¼H<sub>2</sub>O

Batch Molecular Weight: 474.03

Physical Appearance: Pale yellow 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. 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:**

**Bamborough et al** (2006) 5-(1*H*-Benzimidazol-1-yl)-3-alkoxy-2-thiophenecarbonitriles as potent, selective, inhibitors of IKK-ε kinase. *Bioorg.Med.Chem.Lett.* **16** 6236. PMID: 16997559.

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**bio-techne.com**  
[info@bio-techne.com](mailto:info@bio-techne.com)  
[techsupport@bio-techne.com](mailto:techsupport@bio-techne.com)

**North America**  
 Tel: (800) 343 7475

**China**  
[info.cn@bio-techne.com](mailto:info.cn@bio-techne.com)  
 Tel: +86 (21) 52380373

**Europe Middle East Africa**  
 Tel: +44 (0)1235 529449

**Rest of World**  
[www.tocris.com/distributors](http://www.tocris.com/distributors)  
 Tel: +1 612 379 2956