Print Date: Oct 21st 2024

# Certificate of Analysis



**Product Name:** **AZ 5704** **Catalog No.: 6330** **Batch No.: 1**

CAS Number: 1941214-06-7

IUPAC Name: 7-Fluoro-6-[6-(methoxymethyl)-3-pyridinyl]-4-[[(1*S*)-1-(1-methyl-1*H*-pyrazol-3-yl)ethyl]amino]-3-quinolinecarboxamide

## 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** $C_{23}H_{23}FN_6O_2.¼H_2O$

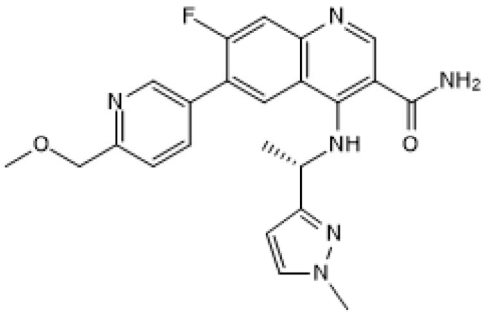
**Batch Molecular Weight:** 438.97

**Physical Appearance:** Off White solid

**Solubility:** DMSO to 100 mM

**Storage:** Store at -20°C

**Batch Molecular Structure:**




## 2. ANALYTICAL DATA

**TLC:** $R_f$ = 0.27 (Dichloromethane:Methanol [9:1])

**HPLC:** Shows 98.7% purity

**Chiral HPLC:** Shows 98.4% purity

**$^1$H NMR:** Consistent with structure

**Mass Spectrum:** Consistent with structure

**Microanalysis:**

| | Carbon | Hydrogen | Nitrogen |
|---|---|---|---|
| Theoretical | 62.93 | 5.4 | 19.14 |
| Found | 62.85 | 5.32 | 19 |



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**Description:**

AZ 5704 is a potent and selective ATM kinase inhibitor ($IC_{50}$ = 0.6 nM in an enzyme inhibition assay). Exhibits > 600-fold selectivity for ATM over other kinases. Inhibits ATM kinase in an in vitro cellular assay ($IC_{50}$ = 0.33 µM). Potentiates the antitumor effects of the topoisomerase 1 inhibitor irinotecan (CPT 11, Cat. No. 2688) in tumor bearing, immunocompromised mice. Orally bioavailable.

**Physical and Chemical Properties:**

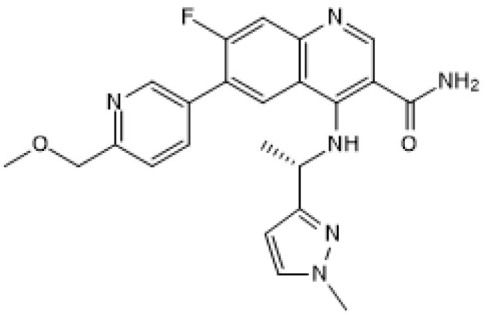
Batch Molecular Formula: $C_{23}H_{23}FN_6O_2.¼H_2O$

Batch Molecular Weight: 438.97

Physical Appearance: Off 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:**

**Degorce** *et al* (2016) Discovery of novel 3-quinoline carboxamides as potent, selective and orally bioavailable inhibitors of ataxia telangiectasia mutated (ATM) kinase. J.Med.Chem. ***59*** 6281. PMID: 27259031.