bio-techne
TOCRIS

Print Date: Jan 28th 2025

# Certificate of Analysis

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**Product Name:** **PFI 7** **Catalog No.: 7960** **Batch No.: 1**

IUPAC Name: *N*-((1*s*,4*s*)-4-(1*H*-Benzo[*d*]imidazol-2-yl)cyclohexyl)-2-(((1*H*-indol-2-yl)methyl)amino)acetamide dihydrochloride

## 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** $C_{24}H_{27}N_5O.2HCl.1½H_2O$

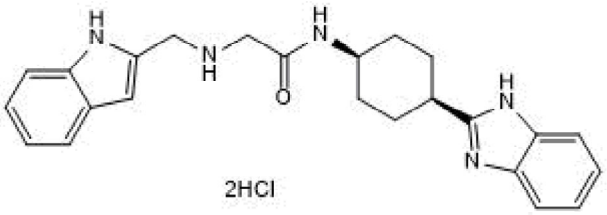
**Batch Molecular Weight:** 501.45

**Physical Appearance:** Pink crystalline solid

**Solubility:** water to 100 mM with gentle warming
DMSO to 100 mM

**Storage:** Store at -20°C

**Batch Molecular Structure:**




## 2. ANALYTICAL DATA

**HPLC:** Shows 99.8% purity

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

**Mass Spectrum:** Consistent with structure

**Microanalysis:**

| | Carbon | Hydrogen | Nitrogen | Chlorine |
|---|---|---|---|---|
| Theoretical | 57.49 | 6.43 | 13.97 | 14.14 |
| Found | 56.99 | 6.3 | 13.76 | 14.65 |



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**Description:**

PFI 7 is a selective GID4 antagonist ($K_d$ = 80 nM by SPR assays and $EC_{50}$ = 0.6 µM by cell-based NanoBRET). PFI 7 binds within the ß-barrel of GID4 substrate binding pocket, disrupting its interaction with the canonical Pro/N-degron peptide in live cells. It alters protein levels of several proteins including RNA helicases as measured by quantitative proteomics.

**Physical and Chemical Properties:**

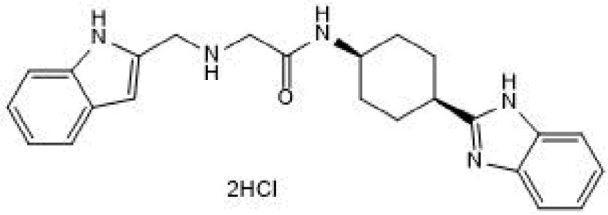
Batch Molecular Formula: $C_{24}H_{27}N_5O.2HCl.1½H_2O$

Batch Molecular Weight: 501.45

Physical Appearance: Pink crystalline solid

**Minimum Purity:** ≥98%

**Batch Molecular Structure:**




**Storage:** Store at -20°C

**Solubility & Usage Info:**

water to 100 mM with gentle warming
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.

**Licensing Information:**

This probe is supplied in conjunction with the Structural Genomics Consortium. For further characterization details, please visit the PFI 7 probe summary on the SGC website.

**References:**

**Owens** *et al* (2024) A chemical probe to modulate human GID4 Pro/N-degron interactions. Nat.Chem.Biol. ***20*** 1164. PMID: 38773330.