

Certificate of Analysis

Print Date: Jul 13th 2022

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Product Name: AT 7867 Catalog No.: 7001 Batch No.: 1

CAS Number: 2624336-89-4

IUPAC Name: 4-(4-Chlorophenyl)-4-[4-(1*H*-pyrazol-4-yl)phenyl]piperidine hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₀H₂₀ClN₃.HCl.2½H₂O

Batch Molecular Weight: 419.35 **Physical Appearance:** White solid

Solubility: DMSO to 100 mM

ethanol to 10 mM

Storage: Store at -20°C

Batch Molecular Structure:

HN CI HCI

2. ANALYTICAL DATA

HPLC: Shows 98.0% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis: Carbon Hydrogen Nitrogen Chlorine

Theoretical 57.28 6.25 10.02 16.91 Found 57.18 5.82 9.94 16.91

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Product Information

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Description:

AT 7867 is a potent pan-Akt (protein kinase B) and protein kinase A (PKA) inhibitor (IC $_{50}$ values are 32, 17, 47 and 20 nM for Akt1, Akt2, Akt3 and PKA, respectively). Also inhibits p70-S6 kinase (p70S6K, IC $_{50}$ = 85 nM). Inhibits Akt signaling and proliferation of multiple human cancer cell lines, including breast, prostate and colon. Promotes proliferation of iPSC-derived PDX1+ pancreatic progenitor cells (PPCs).

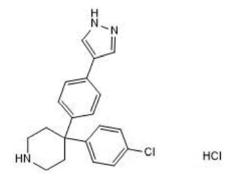
Physical and Chemical Properties:

Batch Molecular Formula: $C_{20}H_{20}CIN_3.HCI.2\frac{1}{2}H_2O$

Batch Molecular Weight: 419.35 Physical Appearance: White solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at -20°C

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.

References:

Kimura et al (2017) Small molecule AT7867 proliferates PDX1-expressing pancreatic progenitor cells derived from human pluripotent stem cells. Stem Cell Res. 24 61. PMID: 28843156.

Grimshaw *et al* (2010) AT7867 is a potent and oral inhibitor of AKT and p70 S6 kinase that induces pharmacodynamic changes and inhibits human tumor xenograft growth. Mol.Cancer Ther. **9** 1100. PMID: 20423992.