

Certificate of Analysis

Print Date: Dec 23rd 2019

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Product Name: ACHP Catalog No.: 4547 Batch No.: 4

CAS Number: 406208-42-2

IUPAC Name: 2-Amino-6-[2-(cyclopropylmethoxy)-6-hydroxyphenyl]-4-(4-piperidinyl)-3-pyridinecarbonitrile

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{21}H_{24}N_4O_2$ Batch Molecular Weight:364.44Physical Appearance:Yellow solidSolubility:DMSO to 20 mMStorage:Store at -20°C

Batch Molecular Structure:

2. ANALYTICAL DATA

TLC: R_f = 0.48 (Dichloromethane:Methanol:Ammonia soln. [9:1:0.3])

HPLC: Shows 98.0% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis: Carbon Hydrogen Nitrogen

Theoretical 69.21 6.64 15.37 Found 69.18 6.69 15.03



Product Information

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Description:

IkB kinase inhibitor (IC $_{50}$ values are 8.5 and 250 nM for IKK β and IKK α respectively). Selective for IKK α and IKK β over IKK3, Syk and MAPKKK4 (IC $_{50}$ values are > 20 μ M). Inhibits DNA binding activity of NF-kB. Blocks NF-kB pathway in multiple myeloma cell lines; induces cell growth arrest and apoptosis. Also inhibits STAT3 signaling in NSCLC in vitro.

Physical and Chemical Properties:

Batch Molecular Formula: C₂₁H₂₄N₄O₂ Batch Molecular Weight: 364.44 Physical Appearance: Yellow solid

Minimum Purity: ≥97%

Batch Molecular Structure:

CN NH₂ Storage: Store at -20°C

Solubility & Usage Info:

DMSO to 20 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:

Lee et al (2019) The IkB kinase inhibitor ACHP targets the STAT3 signaling pathway in human non-small cell lung carcinoma cells. Biomolecules 9 875. PMID: 31847229.

Sanda et al (2005) Growth inhibition of multiple myeloma cells by a novel IκB kinase inhibitor. Clin.Cancer Res. 11 1974. PMID: 15756023.

Murata *et al* (2004) Synthesis and structure-activity relationships of novel IKK- β inhibitors. Part 3: Orally active anti-inflammatory agents. Bioorg.Med.Chem.Lett. **14** 4019. PMID: 15225718 .