

Certificate of Analysis

Print Date: Dec 1st 2023

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Product Name: Kenpaullone Catalog No.: 1398 Batch No.: 3

CAS Number: 142273-20-9

IUPAC Name: 9-Bromo-7,12-dihydro-indolo[3,2-d][1]benzazepin-6(5H)-one

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₆H₁₁BrN₂O.½H₂O

Batch Molecular Weight: 331.68

Physical Appearance: Beige solid

Solubility: DMSO to 100 mM

Storage: Store at RT

Batch Molecular Structure:

2. ANALYTICAL DATA

HPLC: Shows 98.0% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis: Carbon Hydrogen Nitrogen

Theoretical 57.94 3.49 8.45 Found 57.02 3.39 8.17



Product Information

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IUPAC Name: 9-Bromo-7,12-dihydro-indolo[3,2-d][1]benzazepin-6(5H)-one

Description:

Kenpaullone is a GSK-3beta inhibitor ($IC_{50} = 0.23~\mu M$). Also inhibits cyclin dependent kinases (cdks) in the sub micromolar range (reported IC_{50} values are 0.4, 0.68-7 and 0.85 μM for cdk1, cdk2 and cdk5, respectively). Generates induced pluripotent stem cells (iPSCs) from somatic cells when used in combination with reprogramming factors; can replace Klf4.

Physical and Chemical Properties:

Batch Molecular Formula: C₁₆H₁₁BrN₂O.½H₂O

Batch Molecular Weight: 331.68 Physical Appearance: Beige solid

Minimum Purity: ≥98%

Batch Molecular Structure:

Storage: Store at RT

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:

Jorda et al (2018) How selective are pharmacological inhibitors of cell-cycle-regulating cyclin-dependent kinases? J.Med.Chem. 61 9105. PMID: 30234987.

Lyssiotis *et al* (2009) Reprogramming of murine fibroblasts to induced pluripotent stem cells with chemical complementation of Klf4. Proc.Natl.Acad.Sci.U.S.A. *106* 8912. PMID: 19447925 .

Buolamwini (2000) Cell cycle targets in novel anticancer drug discovery. Curr.Pharm.Des. 6 379. PMID: 10788588.