



Certificate of Analysis

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Product Name: SAK 3 Catalog No.: 6239 Batch No.: 1

CAS Number: 1256269-87-0

IUPAC Name: Ethyl 8'-methyl-2',4-dioxo-2-(piperidin-1-yl)-2'H-spiro[cyclopent[2]ene-1,3'-imidazo[1,2-a]pyridine]-3-carboxylate

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{20}H_{23}N_3O_4.1/4H_2O$

Batch Molecular Weight: 373.91

Physical Appearance: Off White solid
Solubility: DMSO to 100 mM

1eq. HCl to 100 mM

Storage: Store at +4°C

Batch Molecular Structure:

2. ANALYTICAL DATA

TLC: $R_f = 0.49$ (Dichloromethane:Methanol [9:1])

HPLC: Shows 99.8% purity

¹H NMR: Consistent with structure Mass Spectrum: Consistent with structure

Microanalysis: Carbon Hydrogen Nitrogen

Theoretical 64.24 6.33 11.24 Found 64.21 6.31 11.27

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Product Information

Print Date: Jul 5th 2018

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Description:

Potent $Ca_V3.1$ and $Ca_V3.3$ activator. Enhances $Ca_V3.1$ and $Ca_V3.3$, but not $Ca_V3.2$ activity at concentrations of 0.01 - 10 M in neuro2A cells in vitro. Elevates ACh levels in hippocampus. Rescues impaired memory-related behaviors in OBX mice. Orally bioavailable.

Physical and Chemical Properties:

Batch Molecular Formula: C₂₀H₂₃N₃O₄.1/₄H₂O

Batch Molecular Weight: 373.91 Physical Appearance: Off White solid

Minimum Purity: >98%

Batch Molecular Structure:

Storage: Store at +4°C

Solubility & Usage Info:

DMSO to 100 mM 1eq. HCl 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. 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:

Yabuki et al (2017) Pharmacological properties of SAK3, a novel T-type voltage-gated Ca²⁺ channel enhancer. Neuropharmacology 117 1. PMID: 28093211.

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use