TOCRIS
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Print Date: Jun 9th 2022

Certificate of Analysis

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Product Name: **UNC 0224** **Catalog No.: 3861** **Batch No.: 2**

CAS Number: 1197196-48-7

IUPAC Name: 7-[3-(Dimethylamino)propoxy]-2-(hexahydro-4-methyl-1*H*-1,4-diazepin-1-yl)-6-methoxy-*N*-(1-methyl-4-piperidinyl)-4-quinazolinamine

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{26}H_{43}N_7O_2.1¼H_2O$

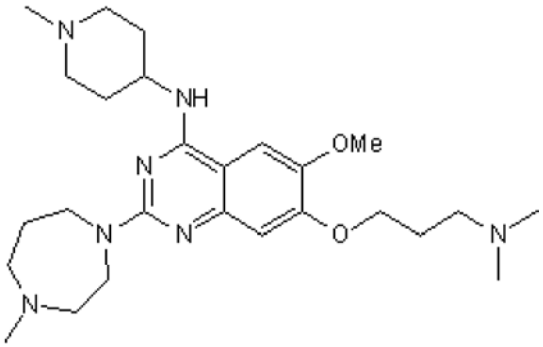
Batch Molecular Weight: 508.19

Physical Appearance: White solid

Solubility: 1eq. HCl to 100 mM
DMSO to 100 mM
ethanol to 100 mM

Storage: Store at +4°C

Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.2 (Dichloromethane:Methanol:Ammonia soln. [90:9:1])

HPLC: Shows 99.2% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	61.45	9.02	19.29
Found	61.59	8.85	19.17

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Description:

UNC 0224 is a potent G9a and GLP inhibitor (IC_{50} values are 15 and 20 nM in a ThioGlo assay, respectively). Exhibits >1000-fold selectivity for G9a over SET7, SET8 and SET9. UNC 0224 can be used in protocols for the chemical reprogramming of somatic cells to iPSCs.

Physical and Chemical Properties:

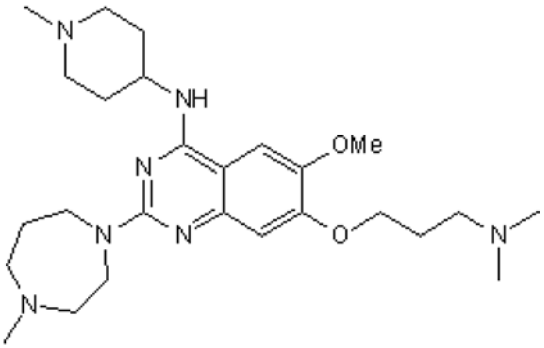
Batch Molecular Formula: $C_{26}H_{43}N_7O_2.1¼H_2O$

Batch Molecular Weight: 508.19

Physical Appearance: White solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at +4°C

Solubility & Usage Info:

1eq. HCl to 100 mM
DMSO to 100 mM
ethanol 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:

Guan *et al* (2022) Chemical reprogramming of human somatic cells to pluripotent stem cells. Nature ***605*** 325. PMID: 35418683.

Liu *et al* (2009) Discovery of a 2,4-diamino-7-aminoalkoxyquinazoline as a potent and selective inhibitor of histone lysine methyltransferase G9a. J.Med.Chem. ***52*** 7950. PMID: 19891491.