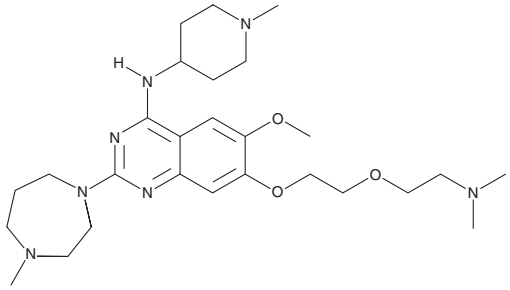
PRODUCT INFORMATION

UNC0321

Item No. 41100

CAS Registry No.:	1238673-32-9
Formal Name:	7-[2-[2-(dimethylamino)ethoxy] ethoxy]-2-(hexahydro-4-methyl-1H-1,4-diazepin-1-yl)-6-methoxy-N-(1-methyl-4-piperidinyl)-4-quinazolinamine
MF:	$C_{27}H_{45}N_7O_3$
FW:	515.7
Purity:	≥98%
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

UNC0321 is supplied as a solid. A stock solution may be made by dissolving the UNC0321 in the solvent of choice, which should be purged with an inert gas. UNC0321 is soluble in organic solvents such as ethanol and DMSO. UNC0321 is sparingly soluble (1-10 mg/ml) in ethanol and slightly soluble (0.1-1 mg/ml) in DMSO.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of UNC0321 can be prepared by directly dissolving the solid in aqueous buffers. UNC0321 is sparingly soluble (1-10 mg/ml) in PBS (pH 7.2). We do not recommend storing the aqueous solution for more than one day.

Description

UNC0321 is an inhibitor of the histone methyltransferases G9a and G9a-like protein (GLP; IC_{50}s = 9 and 15 nM, respectively).[1] It is selective for G9a and GLP over SET domain-containing protein 7 (SET7), SET8, protein arginine methyltransferase 3 (PRMT3), and jumonji domain-containing 2E (JMJD2E; IC_{50}s = >10,000 nM for all). UNC0321 decreases the levels of dimethylated lysine 9 on histone H3 (H3K9me2) in MDA-MB-231 cells (IC_{50} = 11 µM) without inducing cytotoxicity (EC_{50} = >40 µM).[2]

References

1. Liu, F., Chen, X., Allali-Hassani, A., *et al.* Protein lysine methyltransferase G9a inhibitors: Design, synthesis, and structure activity relationships of 2,4-diamino-7-aminoalkoxy-quinazolines. *J. Med. Chem.* **53(15)**, 5844-5857 (2010).
2. Li, P., Li, M., Lindberg, M.R., *et al.* PAD4 is essential for antibacterial innate immunity mediated by neutrophil extracellular traps. *J. Exp. Med.* **207(9)**, 1853-1862 (2010).

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