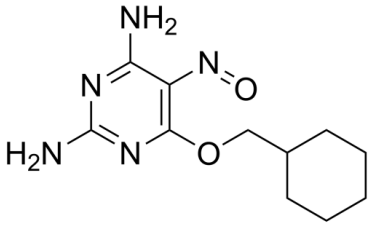
Data Sheet

Product Name:	NU6027
Cat. No.:	CS-0007937
CAS No.:	220036-08-8
Molecular Formula:	$C_{11}H_{17}N_5O_2$
Molecular Weight:	251.28
Target:	ATM/ATR; CDK
Pathway:	Cell Cycle/DNA Damage; PI3K/Akt/mTOR
Solubility:	DMSO : 12.5 mg/mL (49.75 mM; ultrasonic and warming and heat to 60°C)



BIOLOGICAL ACTIVITY:

NU6027 is a potent and ATP-competitive inhibitor of both **CDK1** and **CDK2**, with K_is of 2.5 μM and 1.3 μM, respectively. NU6027 is also a potent inhibitor of **ATR** and enhances hydroxyurea and cisplatin cytotoxicity in an ATR-dependent manner[1][2]. ***In Vitro:*** NU6027 (1 nM-100 μM; 48 h) inhibits the growth of human tumor cells with a GI_{50} of 10±6 μM[1].
NU6027 (0.1-25 μM; 24 h) inhibits ATR activity with an IC_{50} of 2.8 μM in GM847KD cells. NU6027 (1-10 μM; 24 h) inhibits ATR activity with an IC_{50} of 6.7±2.3 μM in MCF7 cells[2].
NU6027 (4 or 10 μM; 24 h) attenuates G2/M arrest following DNA damage in MCF7 cells[2].
NU6027 (10 μM; 24 h) significantly reduces RAD51 foci in both control and PF-01367338-treated V-C8 B2 cells[2].
NU6027 (4 μM; 24 h) causes 82% suppression of the increase in RAD51 foci-positive cells treated by PF-01367338[2].

References:

[1]. Arris CE, et, al. Identification of novel purine and pyrimidine cyclin-dependent kinase inhibitors with distinct molecular interactions and tumor cell growth inhibition profiles. J Med Chem. 2000 Jul 27; 43(15): 2797-804.

[2]. Peasland A, et, al. Identification and evaluation of a potent novel ATR inhibitor, NU6027, in breast and ovarian cancer cell lines. Br J Cancer. 2011 Jul 26;105(3):372-81.

CAIndexNames:

2,4-Pyrimidinediamine, 6-(cyclohexylmethoxy)-5-nitroso-

SMILES:

NC1=NC(OCC2CCCCC2)=C(N=O)C(N)=N1

Caution: Product has not been fully validated for medical applications. For research use only.

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