

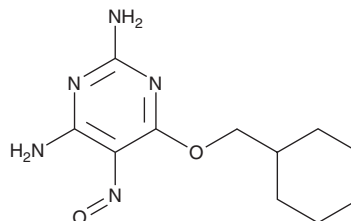
# PRODUCT INFORMATION



## NU 6027

Item No. 16177

**CAS Registry No.:** 220036-08-8  
**Formal Name:** 6-(cyclohexylmethoxy)-5-nitroso-2,4-pyrimidinediamine  
**MF:** C<sub>11</sub>H<sub>17</sub>N<sub>5</sub>O<sub>2</sub>  
**FW:** 251.3  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 236, 334 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥2 years



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

### Laboratory Procedures

NU 6027 is supplied as a crystalline solid. A stock solution may be made by dissolving the NU 6027 in the solvent of choice, which should be purged with an inert gas. NU 6027 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of NU 6027 in these solvents is approximately 1, 10, and 5 mg/ml, respectively.

NU 6027 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, NU 6027 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. NU 6027 has a solubility of approximately 0.3 mg/ml in a 1:2 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

Cyclin-dependent kinases (CDKs) play a key role in regulating cell division by phosphorylating distinct substrates in different phases of the cell cycle. Cell cycle deregulation in many cancers often results from altered CDK activity. Thus, CDKs are potential pharmacological targets for anticancer agents. NU 6027 inhibits both CDK1 and CDK2 with IC<sub>50</sub> values of 2.9 and 2.2 μM, respectively.<sup>1</sup> It has been shown to inhibit cellular ataxia telangiectasia mutated and Rad3-related kinase activity (IC<sub>50</sub> = 6.7 μM) and impair G<sub>2</sub>/M arrest in various human cancer cells, potentiating the cytotoxic effects of DNA-damaging, anticancer agents such as cisplatin.<sup>2</sup>

### References

1. Sayle, K.L., Bentley, J., Boyle, F.T., *et al.* Structure-based design of 2-arylamino-4-cyclohexylmethyl-5-nitroso-6-aminopyrimidine inhibitors of cyclin-dependent kinases 1 and 2. *Bioorg. Med. Chem. Lett.* **13**(18), 3079-3082 (2003).
2. Peasland, A., Wang, L.Z., Rowling, E., *et al.* Identification and evaluation of a potent novel ATR inhibitor, NU6027, in breast and ovarian cancer cell lines. *Br. J. Cancer* **105**(3), 372-381 (2011).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

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