

**Product Name:** NSC 23766

**Catalog No.:** 2161

**Batch No.:** 6

CAS Number: 1177865-17-6

IUPAC Name: *N*<sup>6</sup>-[2-[[4-(Diethylamino)-1-methylbutyl]amino]-6-methyl-4-pyrimidinyl]-2-methyl-4,6-quinolinediamine trihydrochloride

## 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>24</sub>H<sub>35</sub>N<sub>7</sub>.3HCl.4H<sub>2</sub>O

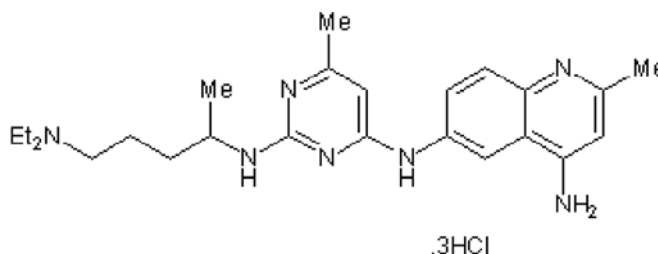
**Batch Molecular Weight:** 603.03

**Physical Appearance:** Off-white solid

**Solubility:** water to 100 mM  
DMSO to 100 mM

**Storage:** Desiccate at RT

**Batch Molecular Structure:**



## 2. ANALYTICAL DATA

**TLC:** R<sub>f</sub> = 0.41 (Pyridine:Acetic acid:Water:Butanol [3:8:11:22])

**HPLC:** Shows 99.8% purity

**<sup>1</sup>H NMR:** Consistent with structure

**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	47.8	7.69	16.26
Found	47.69	7.47	16.18

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**Description:**

NSC 23766 is a selective inhibitor of Rac1-GEF interaction. NSC 23766 prevents Rac1 activation by Rac-specific guanine nucleotide exchange factors (GEFs) TrioN and Tiam1 (IC<sub>50</sub> ~ 50 μM) without affecting Cdc42 or RhoA activation. The compound inhibits Rac1-mediated cell functions and is reported to reverse tumor cell phenotypes in prostate cancer cells. NSC 23766 also inhibits mammary carcinoma cell invasion in vitro and inhibits mammary tumor progression and metastasis in a mouse model.

**Physical and Chemical Properties:**

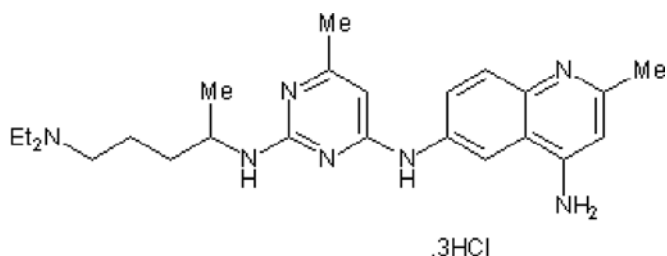
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Batch Molecular Weight: 603.03

Physical Appearance: Off-white solid

**Minimum Purity:** ≥99%

**Batch Molecular Structure:**



**Storage:** Desiccate at RT

**Solubility & Usage Info:**

water to 100 mM

DMSO 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:**

**Floerchinger et al** (2021) Optimizing metastatic-cascade-dependent Rac1 targeting in breast cancer: Guidance using optical window intravital FRET imaging. *Cell Rep.* **36** 109689. PMID: 34525350.

**Gao et al** (2004) Rational design and characterization of a Rac GTPase-specific small molecule inhibitor. *Proc.Natl.Acad.Sci.USA* **101** 7618. PMID: 15128949.

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