

**Product Name:** NR 162

**Catalog No.:** 7572

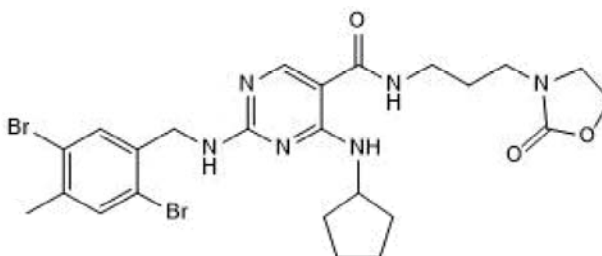
**Batch No.:** 1

CAS Number: 2755241-73-5

IUPAC Name: 4-(Cyclopentylamino)-2-((2,5-dibromo-4-methylbenzyl)amino)-N-(3-(2-oxooxazolidin-3-yl)propyl)pyrimidine-5-carboxamide

## 1. PHYSICAL AND CHEMICAL PROPERTIES

<b>Batch Molecular Formula:</b>	C <sub>24</sub> H <sub>30</sub> Br <sub>2</sub> N <sub>6</sub> O <sub>3</sub>
<b>Batch Molecular Weight:</b>	610.35
<b>Physical Appearance:</b>	White solid
<b>Solubility:</b>	DMSO to 20 mM ethanol to 5 mM
<b>Storage:</b>	Store at -20°C
<b>Batch Molecular Structure:</b>	



## 2. ANALYTICAL DATA

<b>HPLC:</b>	Shows 99.7% purity
<b><sup>1</sup>H NMR:</b>	Consistent with structure
<b>Mass Spectrum:</b>	Consistent with structure
<b>Microanalysis:</b>	

	Carbon	Hydrogen	Nitrogen
Theoretical	47.23	4.95	13.77
Found	47.24	4.86	13.61

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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**1**

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**Description:**

NR 162 is a potent and selective calcium/calmodulin-dependent serine protein kinase (CASK) inhibitor ( $IC_{50} = 80$  nM); it exhibits no significant activity against related kinases MERTK, AXL and ABL1 and ~ 47-fold selectivity over TYRO3 ( $IC_{50} = 3.8$   $\mu$ M). NR 162 targets the unique pocket created by CASK GFG motif; it is a type-I inhibitor which stabilizes the active state of CASK without affecting the scaffolding function. NR 162 induces cell death in actively differentiating cells of the P19 neuronal differentiation model. NR 162 shows no toxicity in differentiated cells, or in cancer cells.

**Physical and Chemical Properties:**

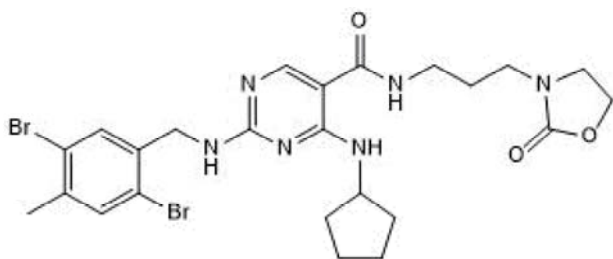
Batch Molecular Formula:  $C_{24}H_{30}Br_2N_6O_3$

Batch Molecular Weight: 610.35

Physical Appearance: White solid

**Minimum Purity:**  $\geq 98\%$

**Batch Molecular Structure:**



**References:**

Russ *et al* (2021) Design and development of a chemical probe for pseudokinase  $Ca^{2+}$ /calmodulin-dependent Ser/Thr kinase. *J.Med.Chem.* **64** 14358. PMID: 34543009.

**Storage:** Store at  $-20^{\circ}C$

**Solubility & Usage Info:**

DMSO to 20 mM

ethanol to 5 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  $45-60^{\circ}C$  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  $-20^{\circ}C$  or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

**Licensing Information:**

This probe is supplied in conjunction with the Structural Genomics Consortium. For further characterization details, please visit the NR 162 probe summary on the SGC website.

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