

Product Name: Centrinone

Catalog No.: 5687

Batch No.: 3

CAS Number: 1798871-30-3

IUPAC Name: 2-[[2-Fluoro-4-[[2-fluoro-3-nitrophenyl)methyl]sulfonyl]phenyl]thio]-5-methoxy-*N*-(5-methyl-1*H*-pyrazol-3-yl)-6-(4-morpholinyl)-4-pyrimidinamine

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₆H₂₅F₂N₇O₆S₂

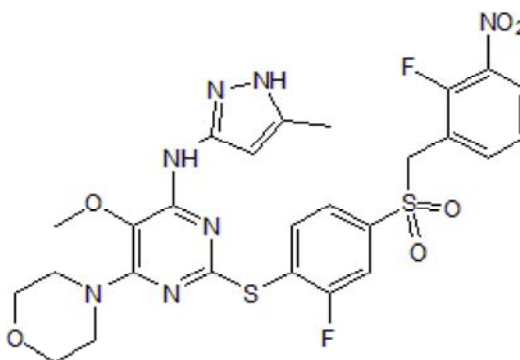
Batch Molecular Weight: 633.65

Physical Appearance: Yellow solid

Solubility: DMSO to 50 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.3% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	49.28	3.98	15.47
Found	49.09	3.92	15.49

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

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Description:

High affinity and selective PLK4 inhibitor ($K_i = 0.16$ nM). Exhibits >1000-fold selectivity for PLK4 over Aurora A and Aurora B. Depletes centriole and centrosome levels in vitro. Induces cell cycle arrest in normal human cell lines in a p53-dependent manner. Decreases expression of pluripotency markers and induces differentiation in pluripotent stem cells.

Physical and Chemical Properties:

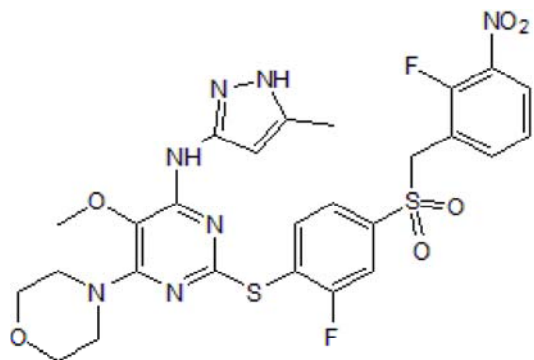
Batch Molecular Formula: $C_{26}H_{25}F_2N_7O_6S_2$

Batch Molecular Weight: 633.65

Physical Appearance: Yellow solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

DMSO to 50 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.

Licensing Information:

Sold with the permission of the Ludwig Institute for Cancer Research Ltd

References:

Renzova et al (2019) Inactivation of PLK4-STIL module prevents self-renewal and triggers p53-dependent differentiation in human pluripotent stem cells. *Stem Cell Reports*. **11** 959. PMID: 30197118.

Wong et al (2015) Reversible centriole depletion with an inhibitor of Polo-like kinase 4. *Science* **348** 1155. PMID: 25931445.

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