

# MLN8054

Catalog No: tcsc0010



## Available Sizes

**Size:** 5mg

**Size:** 10mg

**Size:** 50mg

**Size:** 100mg



## Specifications

**CAS No:**

869363-13-3

**Formula:**

$C_{25}H_{15}ClF_2N_4O_2$

**Pathway:**

Cell Cycle/DNA Damage;Epigenetics

**Target:**

Aurora Kinase;Aurora Kinase

**Purity / Grade:**

>98%

**Solubility:**

DMSO : 30 mg/mL (62.91 mM; Need ultrasonic and warming)

**Observed Molecular Weight:**

476.86

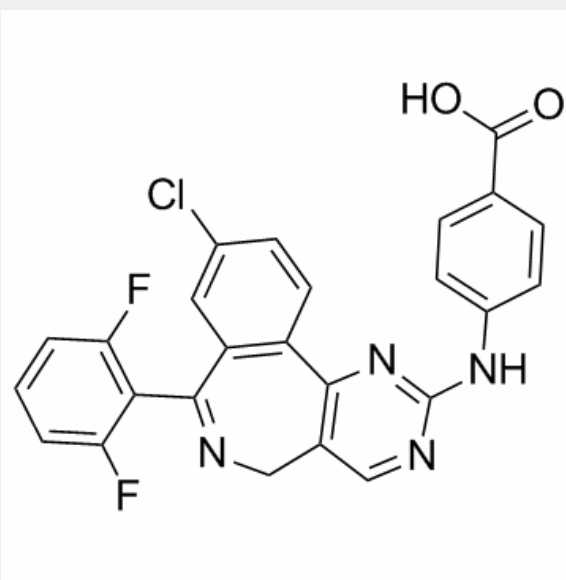
## Product Description

MLN8054 is a potent, selective and orally available **aurora A** kinase inhibitor with an **IC<sub>50</sub>** of 4 nM.

IC50 & Target: IC50: 4 nM (Aurora A), 172 nM (Aurora B)<sup>[1]</sup>

**In Vitro:** MLN8054 is an ATP-competitive, reversible inhibitor of recombinant Aurora A kinase. MLN8054 is >40-fold more selective for Aurora A compared with the family member Aurora B. MLN8054 selectively inhibits Aurora A over Aurora B in cultured human tumor cells. MLN8054 treatment results in G2/M accumulation and spindle defects and inhibits proliferation in multiple cultured human tumor cells lines. MLN8054 effectively inhibits the growth of cells from diverse tissue origins with IC<sub>50</sub> values ranging from 0.11 to 1.43 μM<sup>[1]</sup>. Treatment of human tumor cells grown in culture with MLN8054 shows a number of morphologic and biochemical changes associated with senescence<sup>[2]</sup>.

**In Vivo:** In the HCT-116 tumor-bearing mice, MLN8054 treatment inhibits tumor growth dose dependently. MLN8054 is generally well tolerated. MLN8054 also inhibits the growth of the PC-3 tumor xenograft in nude mice. MLN8054 Treatment Results in Inhibition of Aurora A, Accumulation of Mitotic Cells, and Apoptosis *in vivo*<sup>[1]</sup>. MLN8054 selectively inhibits Aurora A kinase activity when dosed at 30 mg/kg. At this dose in HCT116 tumor tissue, MLN8054 has been shown to inhibit Aurora A autophosphorylation, and induce an increase in the Aurora B substrate, pHisH3<sup>[2]</sup>.



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!