

# JNJ-7706621

Catalog No: tcsc0179



## Available Sizes

**Size:** 2mg

**Size:** 5mg

**Size:** 10mg

**Size:** 50mg

**Size:** 100mg



## Specifications

**CAS No:**

443797-96-4

**Formula:**

$C_{15}H_{12}F_2N_6O_3S$

**Pathway:**

Cell Cycle/DNA Damage;Cell Cycle/DNA Damage;Epigenetics

**Target:**

CDK;Aurora Kinase;Aurora Kinase

**Purity / Grade:**

>98%

**Solubility:**

10 mM in DMSO

**Observed Molecular Weight:**

394.36

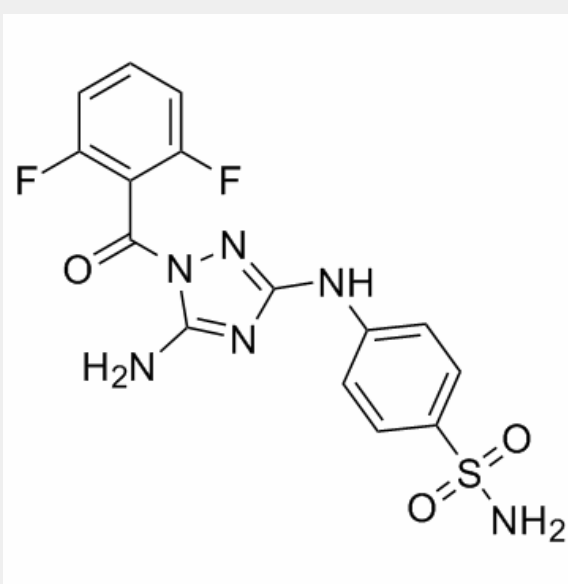
## Product Description

JNJ-7706621 is a potent **aurora kinase** inhibitor, and also inhibits **CDK1** and **CDK2**, with **IC<sub>50</sub>**s of 9, 3, 11, and 15 nM for CDK1, CDK2, Aurora-A and Aurora-B, respectively.

IC<sub>50</sub> & Target: IC<sub>50</sub>: 3 nM (CDK2), 9 nM (CDK1), 11 nM (Aurora-A), 15 nM (Aurora-B)<sup>[4]</sup>

**In Vitro:** JNJ-7706621 shows antiproliferative activity against various human tumor cells with IC<sub>50</sub>s of 284, 254, and 447 nM for HeLa, HCT116, and A375, respectively<sup>[1]</sup>. JNJ-7706621 inhibits other centrosomal proteins such as TOG, Nek2, and TACC3 in early mitotic phase, but does not prevent localization of Aurora A to the spindle poles. Treatment of nocodazole-synchronized cells with JNJ-7706621 can override mitotic arrest by preventing spindle checkpoint signaling, resulting in failure of chromosome alignment and segregation<sup>[2]</sup>. JNJ-7706621 suspensions inhibits cell viability of HeLa cells with IC<sub>50</sub>s of 2.1 and 0.9 µg/mL at 24 and 48 h. The IC<sub>50</sub> of the JNJ-7706621-loaded nanoparticles are 35 and 2.7 µg/mL and the IC<sub>50</sub> of the JNJ-7706621-loaded micelles are 6.3 and 1.6 µg/mL<sup>[3]</sup>. JNJ-7706621 shows inhibition of Aurora-A and Aurora-B but has no activity at the highest concentration tested on the Plk1 or Wee1 serine/threonine kinases. JNJ-7706621 also shows potent growth inhibition in vitro on all human cancer cell types with IC<sub>50</sub> values ranging from 112 to 514 nM<sup>[4]</sup>.

**In Vivo:** JNJ-7706621 (100 mg/kg, i.p.) exhibits 95% tumor growth inhibition in A375 (human melanoma) tumor xenograft model<sup>[1]</sup>. JNJ-7706621-loaded micelles inhibit tumor growth, and delay the tumor growth more efficiently than the control JNJ-7706621 suspension<sup>[3]</sup>. JNJ-7706621 (100 and 125 mg/kg) is efficacious in a human tumor xenograft model under intermittent dosing regimens<sup>[4]</sup>.



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