

# GW843682X

Catalog No: tcsc0070



## Available Sizes

**Size:** 5mg

**Size:** 10mg

**Size:** 50mg



## Specifications

**CAS No:**

660868-91-7

**Formula:**

$C_{22}H_{18}F_3N_3O_4S$

**Pathway:**

Cell Cycle/DNA Damage

**Target:**

Polo-like Kinase (PLK)

**Purity / Grade:**

>98%

**Solubility:**

DMSO : 33.33 mg/mL (69.81 mM; Need ultrasonic); H2O :

**Alternative Names:**

GW843682

**Observed Molecular Weight:**

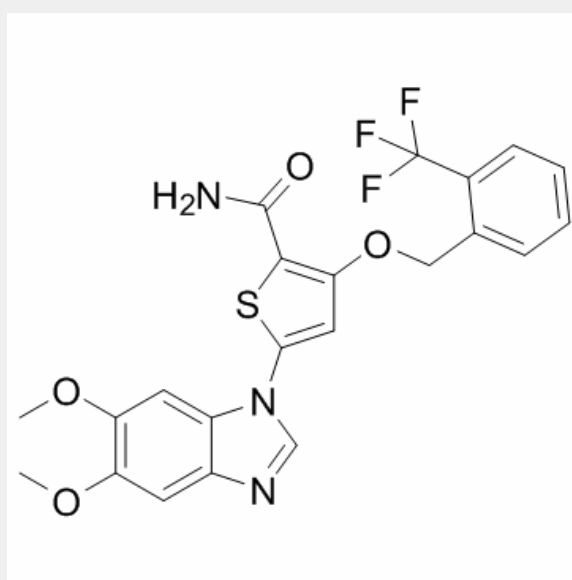
477.46

## Product Description

GW843682X is a selective, ATP-competitive inhibitor of **PLK1** and **PLK3**, with **IC<sub>50</sub>**s of 2.2 nM and 9.1 nM, respectively, and is also >100-fold selective against ~30 other kinases.

IC50 & Target: IC50: 2.2 nM (PLK1), 9.1 nM (PLK3)<sup>[1]</sup>

**In Vitro:** GW843682X (compound 1) is effective on inhibition of growth of tumor cells, with IC<sub>50</sub>s of 0.41, 0.57, 0.11, 0.38, and 0.70 μM for A549, BT474, HeLa, H460 and HCT116 cell lines. GW843682X dose-dependently inhibits PLK1 phosphorylation of Ser15-p53, with an IC<sub>50</sub> of 0.14 μM. GW843682X (3 μM) causes a strong G2-M arrest in HDF cells and H460 cells after treatment for 24, 48, and 72 h. GW843682X (5 μM) leads to apoptosis in H460 cells instead of HDF cells<sup>[1]</sup>. GW843682X inhibits proliferation of U937 cells with an EC<sub>50</sub> of 120 nM. GW843682X (500 nM) in combination with 5 μM VP-16 suppresses 50% of entry into mitosis in U937 cells<sup>[2]</sup>. GW843682X (0.06-1 μM) has inhibitory activities against proliferation of acute leukemia cells, and potentiates the anti-proliferative activity of vincristine. Moreover, GW843682X (0.1-1 μM) induces apoptosis of leukemia cells in a dose- and time-dependent manner. GW843682X (0.5-1 μM) dephosphorylates Bcl-xl in leukemia cells<sup>[3]</sup>.



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