Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

# MLN0905

## Catalog No: tcsc1081

### Available Sizes

**Size:** 5mg

**Size:** 10mg

**Size:** 50mg

### Specifications

**CAS No:**
1228960-69-7

**Formula:**
$C_{24}H_{25}F_3N_6S$

**Pathway:**
Cell Cycle/DNA Damage

**Target:**
Polo-like Kinase (PLK)

**Purity / Grade:**
>98%

**Solubility:**
DMSO : ≥ 30 mg/mL (61.66 mM)

**Alternative Names:**
PLK1 Inhibitor

**Observed Molecular Weight:**
486.56

## Product Description

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MLN0905 is a potent **PLK1** inhibitor, with an **$IC_{50}$** of 2 nM.

IC50 & Target: IC50: 2 nM (PLK1)[1]

***In Vitro:*** MLN0905 (compound 12c) exhibits potent activities with an $EC_{50}$ of 33 ± 21 nM for Cdc25C. MLN0905 shows inhibitory effects on HT29, HCT116, H460, and A375 cell lines, with $LD_{50}$s of 22, 56, 89, and 34 nM[1]. MLN0905 (125 nM) yields strong mitotic arrest and monopolar spindle formation in HT-29 cells, and these effects are associated with PLK1 inhibition. MLN0905 suppresses lymphoma cell lines with $IC_{50}$ values ranging from 3 to 24 nM[2].

***In Vivo:*** MLN0905 (50 mg/kg, p.o.) shows a higher sustained PD response as it impressively generates a robust PD response up to 72 h in nude mice bearing HT29 xenograft tumors. MLN0905 (6.25, 12.5, 25, 50 mg/kg, p.o.) exhibits significant antitumor activities in mice bearing HT29 xenograft tumors[1]. MLN0905 has marked antitumor effects in a subcutaneous OCI LY-19-Luc lymphoma xenograft model, and the treatment are as follows: 3.12 mg/kg daily, 6.25 mg/kg daily, 10 mg/kg QD×3/wk, and 14.5 mg/kg QD×3/wk. MLN0905 (1.6, 3.12, and 6.25 mg/kg, p.o.) also induces a significant antitumor response in mice bearing disseminated (human) OCI LY-19-Luc lymphoma disease. MLN0905 (6, 8, 10, 12.5, and 14.5 mg/kg, p.o.) causes a significant antitumor response in a primary human lymphoma model (PHTX-22L). Furthermore, MLN0905 synergizes with rituximab in a disseminated OCI LY-19-Luc lymphoma model[2].