Web: www.taiclone.com
Tel: +886-2-2735-9682
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ML-323

Catalog No: tcsc2274

Available Sizes

Size: 5mg

Size: 10mg

Size: 50mg

Size: 100mg

Specifications

CAS No:
1572414-83-5

Formula:
$C_{23}H_{24}N_6$

Pathway:
Cell Cycle/DNA Damage

Target:
Deubiquitinase

Purity / Grade:
>98%

Solubility:
DMSO : ≥ 49 mg/mL (127.44 mM)

Observed Molecular Weight:
384.48

Product Description

ML-323 is a reversible, potent **USP1-UAF1** inhibitor with **IC_{50}** of 76 nM in a Ub-Rho assay. The measured inhibition constants of ML-

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323 for the free enzyme ($\mathbf{K_i}$) is 68 nM.

IC50 & Target: IC50: 76 nM (USP1-UAF1, in Ub-Rho assay)[1]

Ki: 68 nM (USP1-UAF1)[1]

In Vitro: ML-323 (ML323) is a highly potent inhibitor of the USP1-UAF1 deubiquitinase complex with excellent selectivity against human DUBs, deSUMOylase, deneddylase and unrelated proteases. ML-323 is a potent USP1-UAF1 inhibitor with IC50 values of 76 nM in a ubiquitin-rhodamine (Ub-Rho) assay and 174 nM and 820 nM in orthogonal gel-based assays using K63-linked diubiquitin (di-Ub) and monoubiquitinated PCNA (Ub-PCNA) as substrates, respectively. ML-323 probably exerts its inhibitory effect through an allosteric mechanism. The measured inhibition constants of ML-323 for the free enzyme (K_i) and the enzyme-substrate complex (K'_i) are 68 nM and 183 nM. Besides, ML-323 potentiates Cisplatin cytotoxicity in non-small cell lung cancer and osteosarcoma cells[1]. ML-323 (ML323), a probe molecule that displays reversible, nanomolar inhibitory activity and excellent selectivity toward USP1/UAF1. In addition, ML-323 potentiates the cytotoxicity of Cisplatin and increases endogenous monoubiquitination levels of both PCNA and FANCD2, two known cellular targets of USP1/UAF1[2].