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

MI 2

Catalog No: tcsc3231

Available Sizes

Size: 5mg

Size: 10mg

Size: 50mg

Size: 100mg

Specifications

CAS No:
1047953-91-2

Formula:
$C_{19}H_{17}Cl_3N_4O_3$

Pathway:
NF-κB

Target:
MALT1

Purity / Grade:
>98%

Solubility:
DMSO : ≥ 46 mg/mL (100.94 mM)

Alternative Names:
MALT1 inhibitor

Observed Molecular Weight:
455.72

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Product Description

MI 2 (MALT1 inhibitor) is an irreversible **MALT1** protease inhibitor with an **IC_{50}** of 5.84 μM.

IC50 & Target: IC50: 5.84 μM (MALT1)[1]

In Vitro: MI 2 (MI-2) is a lead compound with nanomolar activity in cell-based assays and selective activity against ABC-DLBCLs. MI 2 is the most potent in cell-based assays, with 25% growth-inhibitory concentration (GI_{50}) values in the high-nanomolar range. MI 2 induces significant selective dose-dependent suppression of ABC-DLBCL cells (p[1].

In Vivo: Five C57BL/6 mice were exposed to daily intraperitoneal (IP) administration of increasing doses of MI 2 (MI-2) ranging from 0.05 to 25 mg/kg over the course of 10 days to a cumulative dose of 51.1 mg/kg, and another five mice were exposed to vehicle only (5% DMSO, n=5). There is no evidence of lethargy, weight loss, or other physical indicators of sickness. To ascertain whether the maximal administered dose of 25 mg/kg is safe in a 14 day schedule, ten mice are exposed to daily IP administration of 25 mg/kg of MI 2 over 14 days to a cumulative dose of 350 mg/kg, using as controls five mice injected with vehicle only. Five mice are sacrificed after the 14 day course of MI 2 administration (together with the five controls) and the other five mice are sacrificed after a 10 day washout period to assess delayed toxicity. No toxic effects or other indicators of sickness, including weight loss or tissue damage (macroscopic or microscopic), are noted. Brain, heart, lung, liver, kidney, bowel, spleen, thymus, and bone marrow tissues are examined. Bone marrow is normocellular with trilineage maturing hematopoiesis. Myeloid-to-erythroid ratio is 4-5:1. Megakaryocytes are normal in number and distribution. There was no fibrosis or increased number of blasts or lymphocytes. Complete peripheral blood counts, biochemistry, and liver function tests are normal[1].