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

RITA

Catalog No: tcsc1403

Available Sizes

Size: 5mg

Size: 10mg

Size: 50mg

Specifications

CAS No:
213261-59-7

Formula:
$C_{14}H_{12}O_3S_2$

Pathway:
Cell Cycle/DNA Damage;Autophagy;Apoptosis

Target:
DNA Alkylator/Crosslinker;Autophagy;MDM-2/p53

Purity / Grade:
>98%

Solubility:
DMSO 205.0 mg/mL (701.2 mM)
Water: Insoluble

Storage Instruction:
Powder-20°C for 3 years In solvent -80°C for 12 months

Alternative Names:
NSC 652287

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Observed Molecular Weight:
292.37

Product Description

RITA is an inhibitor of **p53-HDM-2 interaction**, binds to p53dN, with a **K_d** of 1.5 nM, and also induces **DNA-DNA cross-links**.

IC50 & Target: Kd: 1.5 nM (p53dN)[1]

DNA Crosslinker[2]

In Vitro: RITA inhibits p53-HDM-2 interaction, binding to p53dN, with a K_d of 1.5 nM. RITA (10 μM) blocks complex formation between p53 and HDM-2 in HCT116 cells and HDFs and in NHF-ERMyc cells irrespective of c-Myc expression. RITA (0.5 μM) reduces the viability of tumor cells in a wild-type p53-dependent manner. Moreover, RITA (0.1 μM) induces p53-dependent apoptosis. RITA induces p53 but does not via DNA damage-signaling pathway[1]. RITA (NSC 652287) induces DNA-DNA cross-links. RITA induces G2-M cell cycle arrest at 10 nM and causes apoptosis at 100 nM. RITA (100 nM) also elevates p53 and causes dose-dependent effects on p^{21WAF1} protein levels[2]. RITA inhibits the growth of HeLa and CaSki cells, with IC_{50}s of 1 and 10 μM. In addition, RITA (1 μM) stabilizes p53 by inhibiting p53/E6AP interaction[3].

In Vivo: RITA (0.1, 1 or 10 mg/kg, i.p.) shows potent antitumor activity in SCID mice bearing HCT116 and HCT116 $TP53^{-/-}$ xenografts[1]. RITA (10 mg/kg, i.p.) also suppresses the growth of HeLa cells in SCID mice[3].