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

NU 7026

Catalog No: tcsc1532

Available Sizes

Size: 5mg

Size: 10mg

Size: 50mg

Specifications

CAS No:
154447-35-5

Formula:
$C_{17}H_{15}NO_3$

Pathway:
PI3K/Akt/mTOR;Cell Cycle/DNA Damage

Target:
DNA-PK;DNA-PK

Purity / Grade:
>98%

Solubility:
DMSO : 2.9 mg/mL (10.31 mM; Need ultrasonic)

Alternative Names:
DNA-PK Inhibitor II;LY293646

Observed Molecular Weight:
281.31

Product Description

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NU 7026 is a novel specific **DNA-PK** inhibitor with **IC_{50}** of 0.23±0.01 μM, also inhibits **PI3K** with **IC_{50}** of 13±3 μM.

IC50 & Target: IC50: 0.23±0.01 μM (DNA-PK), 13±3 μM (PI3K)[1]

In Vitro: NU7026 (10 μM) potentiates ionizing radiation (IR) cytotoxicity [potentiation factor at 90% cell kill (PF_{90})=1.51±0.04] in exponentially growing DNA-PK proficient but not deficient cells[1]. NU7026 synergistically sensitizes I83 cells to Chlorambucil (CLB) 3.5-fold[2].NU7026, a novel inhibitor of the DNA repair enzyme DNA-dependent protein kinase (DNA-PK). At a dose of 10 μM, which is nontoxic to cells *per se*, a minimum NU7026 exposure of 4 h in combination with 3 Gy radiation is required for a significant radiosensitisation effect in CH1 human ovarian cancer cells[3].

In Vivo: NU7026, a novel inhibitor of the DNA repair enzyme DNA-dependent protein kinase (DNA-PK). Following intravenous administration to mice at 5 mg/kg, NU7026 underwent rapid plasma clearance (0.108 L/h) and this is largely attributed to extensive metabolism. Bioavailability following interperitoneal (i.p.) and p.o. administration at 20 mg/kg is 20 and 15%, respectively[3].