

U0126

Catalog No: tcsc0173



Available Sizes

Size: 10mg

Size: 50mg

Size: 100mg

Size: 200mg

Size: 500mg



Specifications

CAS No:

1173097-76-1

Formula:

$C_{20}H_{22}N_6OS_2$

Pathway:

Autophagy;MAPK/ERK Pathway;Autophagy

Target:

Autophagy;MEK;Mitophagy

Purity / Grade:

>98%

Solubility:

H₂O :

Alternative Names:

U0126-EtOH

Observed Molecular Weight:

426.56

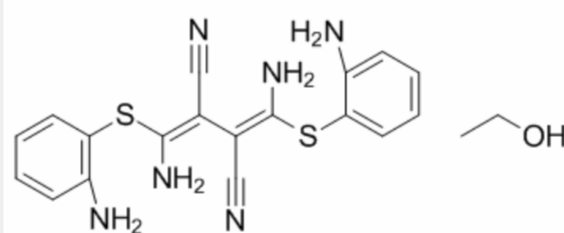
Product Description

U0126 is a non-ATP competitive **MEK** inhibitor, with **IC₅₀** of 70 nM and 60 nM for **MEK1** and **MEK2**, respectively.

IC50 & Target: IC50: 70/60 nM (MEK1/2)^[1]

In Vitro: Treatment with U0126 efficiently reduces progeny virus titers of all tested strains in A549 cells. While nM concentrations of U0126 are efficient to reduce H1N1v and H5N1 (MB1), μ M concentrations of U0126 are required to reduce the virus titer of H5N1 (GSB) and H7N7. The EC₅₀ values for U0126 against H1N1v are $1.2 \pm 0.4 \mu$ M in A549 cells and $74.7 \pm 1.0 \mu$ M in MDCKII cells^[2]. Rat hepatocarcinoma cells (FAO) stimulated by fetal calf serum (FCS) exhibits a significant proportion in S phase (32.62%) whereas U0126 strongly decreases the proportion of cells in S phase (9.92%) and increases the proportion of cells in G₀-G₁ phase and to a lesser extent in G₂/M^[3].

In Vivo: Mice are treated daily with U0126 (i.p., 10.5 mg/kg). In control experiment, tumor sizes are constant or slightly increase all over the kinetic. At the opposite, in all U0126 experiments, engraftment and early tumor growth are significantly decreased. Furthermore, a 60-70% reduction in the volume of tumors treated with U0126 is obtained 9 days after injection and thereafter^[3]. Rats are subjected to 120 minutes transient middle cerebral artery occlusion (tMCAO) and thereafter treated with the U0126 (i.p., 30 mg/kg) at 0 and 24 hours of reperfusion. After treatment with U0126, the vasoconstriction to S6c is markedly reduced^[4].



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