

# U0126

**Catalog No: tcsc0173**



## Available Sizes

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**Size:** 10mg

**Size:** 50mg

**Size:** 100mg

**Size:** 200mg

**Size:** 500mg



## Specifications

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**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:**

H<sub>2</sub>O :

**Alternative Names:**

U0126-EtOH

**Observed Molecular Weight:**

426.56

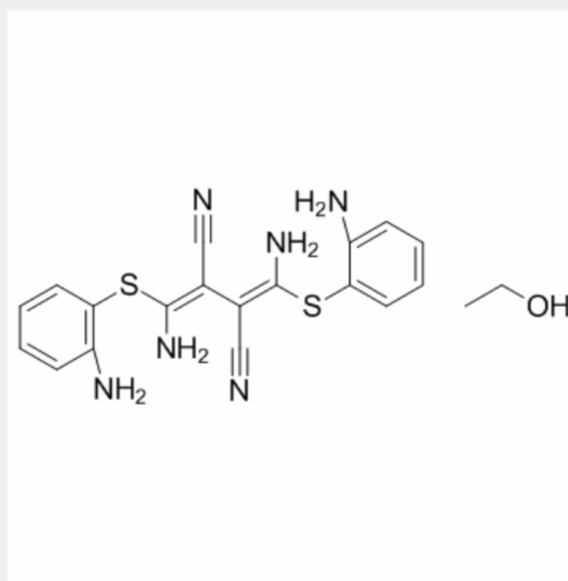
**Product Description**

U0126 is a non-ATP competitive **MEK** inhibitor, with **IC<sub>50</sub>** of 70 nM and 60 nM for **MEK1** and **MEK2**, respectively.

IC50 & Target: IC50: 70/60 nM (MEK1/2)<sup>[1]</sup>

**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),  $\mu$ M concentrations of U0126 are required to reduce the virus titer of H5N1 (GSB) and H7N7. The EC<sub>50</sub> 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<sup>[2]</sup>. 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 G<sub>0</sub>-G<sub>1</sub> phase and to a lesser extent in G<sub>2</sub>/M<sup>[3]</sup>.

**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<sup>[3]</sup>. 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<sup>[4]</sup>.



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!