Cat No. 84-P22

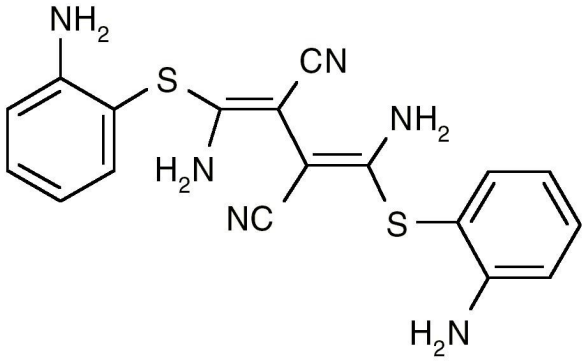
U0126

5mg

For research purposes only

U0126 is a highly selective inhibitor of both MEK1 (IC50 of 72nM) and MEK2 (IC50 of 58 nM). U0126 was found to functionally antagonize AP-1 transcriptional activity via noncompetitive inhibition. U0126 inhibited anchorage-independent growth of Ki-ras-transformed rat fibroblasts by simultaneously blocking both extracellular signal-related kinase (ERK) and mammalian target of rapamycin (mTOR)-p70(S6K) pathways. The effects of U0126 on the growth of eight human breast cancer cell lines shown that U0126 selectively repressed anchorage-independent growth of MDA-MB231 and HBC4 cells, two lines with constitutively activated ERK. Upon treatment with U0126, cells deprived of anchorage entered apoptosis.

TECHNICAL INFORMATION



Other Names: 1,4-diamino-2,3-dicyano-1,4-bis[2-aminophenylthio] butadiene

Chemical Formula: $C_{18}H_{16}N_6S_2$

CAS Number: 109511-58-2

Molecular Weight: 380.49

Purity: 99% pure

Appearance: White solid

Melting Point: 156°- 159°C

Solubility: DMSO

STORAGE AND HANDLING

Storage: Store at 4°C and protected from light. Following reconstitution, store aliquots at -20°C.

Stability: Stock solutions stable at -20°C for up to 2 years.

Shipping Conditions: Shipped at room temperature.

PRODUCT USE

Soluble in DMSO at 200mg/ml. U0126 is very poorly soluble in ethanol and water. The maximum solubility in water is estimated to be 10-50µl.

REFERENCES

1. Favata MF et al. (1998). Identification of a novel inhibitor of mitogen-activated protein kinase kinase. J Biol Chem. 273 (29):18623-32.
2. DeSilva D et al. (1998). Inhibition of mintogen-activated protein kinase kinase blocks T cell proliferation but does not induce or prevent anergy. J Immunol. 160(9): 4175-81.
3. Steinberg R et al. (2007). A protein kinase Cepsilion-anti-apoptotic kinase signaling complex protects human vascular endothelial cells against apoptosis through induction of Bcl-2. J Biol Chem. 282 (44):32288-97.