

Catalog # 10-2179 U0126

CAS# 109511-58-2 1,4-Diamino-2,3-dicyano-1,4-bis[2-aminophenylthio]butadiene Lot # FBA1054

Highly selective inhibitor of MEK1 and MEK2 *in vitro* and *in vivo*. Unlike PD98059, which only inhibits the activation of MEK1 and MEK2, U0126 inhibits both the active and inactive forms of the MEK enzymes. Inhibition of MEK1 and MEK2 has been demonstrated to enhance the self renewal of stem cells.

- 1) Favata et al. (1998), Identification of a novel inhibitor of mitogen activated protein kinase kinase; J. Biol. Chem., **273** 8623
- 2) Miyoshi et al. (2012), Antitumor activity of MEK and PI3K inhibitors against malignant pleural mesothelioma cells in vitro and in vivo; Int. J. Oncol., **41** 449
- 3) Pricola et al. (2009), Interleukin-6 Maintains Bone Marrow-Derived Mesenchymal Stem Cell Stemness by an ERK1/2-Dependent Mechanism; J. Cell Biochem., **108** 577

PHYSICAL DATA

Molecular Weight: 380.49
Molecular Formula: C₁₈H₁₆N₆S₂

Purity: 99% by TLC and HPLC

NMR: (Conforms)

Solubility: DMSO (up to 200 mg/ml)

Physical Description: White solid

Storage and Stability: Store as supplied at -20°C for up to 1 year from the date of purchase. Solutions in

DMSO may be stored at -20°C for up to 3 months.

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