



<b>Catalog Number:</b>	MC11107	<b>Product Type:</b>	Small Molecule
<b>Bio-Activity:</b>	MEK1 and MEK2 inhibitor	<b>CAS #:</b>	109511-58-2
<b>Research Categories:</b>	Stem cells, cancer	<b>Chemical Name:</b>	1,4-Diamino-2,3-dicyano-1,4-bis[2-aminophenylthio]butadiene
<b>Solubility:</b>	Soluble in DMSO (up to 200 mg/ml).	<b>Molecular Formula:</b>	C <sub>18</sub> H <sub>16</sub> N <sub>6</sub> S <sub>2</sub>
<b>Purity:</b>	> 98%	<b>Molecular Weight:</b>	380.49
<b>Format:</b>	Powder	<b>Ship Temp:</b>	Ambient
<b>Storage:</b>	-20°C		

### Application Notes

#### Description/Data:

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.

#### References:

- 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

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