

## U0126

**Cat. #:** U-400

**Current Lot #:** U400U0101, U400U011, U400U025

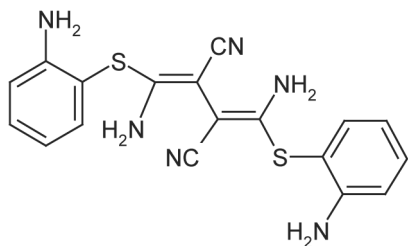
**Source description:** Synthetic.

**M.W.:** 380.5 daltons.

**Purity:** >99%.

**Effective concentration:** 0.1-100  $\mu$ M.

**Structure:**



**Chemical name:** 1,4-Diamino-2,3-dicyano-1,4-bis[2-aminophenylthio]butadiene.

**Molecular formula:** C<sub>18</sub>H<sub>16</sub>N<sub>6</sub>S<sub>2</sub>.

**CAS No.:** 109511-58-2.

**Activity:** U0126 specifically inhibits the kinase activity of mitogen activated protein kinase kinase (MAPKK, MEK1 and MEK2). It is less toxic than PD 98059<sup>1,2</sup>.

**References:**

1. Favata, M.F. *et al.* (1998) *J. Biol. Chem.* **273**, 18623.
2. Duncia, J.V. *et al.* (1998) *Bioorg. Med. Chem. Lett.* **8**, 2839.

**Sizes:** 1 mg, 5 x 1 mg or 10 x 0.1 mg lyophilized powder.

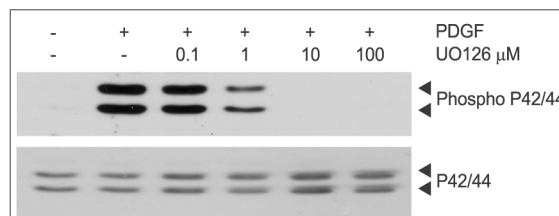
**Storage before reconstitution:** Lyophilized powder can be stored intact at room temperature for several weeks. For longer periods, it should be stored at -20°C.

**Reconstitution:** DMSO. Centrifuge all product preparations before use (10000 x g 5 min).

**Storage and stability after reconstitution:** Up to two weeks at 4°C or six months at -20°C.

**Protect from light.**

**Bioassay:** U0126 inhibits P42/44 MAPK phosphorylation via MEK1/MEK2 in C6 glioma cells.



Cells were grown to 70% confluence and serum starved for 1.5 h. The cells were then incubated for 2 h with various concentrations of **U0126** (#U-400) and stimulated with 7 ng/ml PDGF-AA. Cell proteins were resolved by SDS-PAGE and probed with anti-phospho-P42/44 MAPK (upper panel) and with anti-P42/44 MAPK (lower panel). The phosphorylation of P42/44 decreased in a dose-dependent manner.

**For research purposes only, not for human use.**  
**Last Update: May, 2010.**