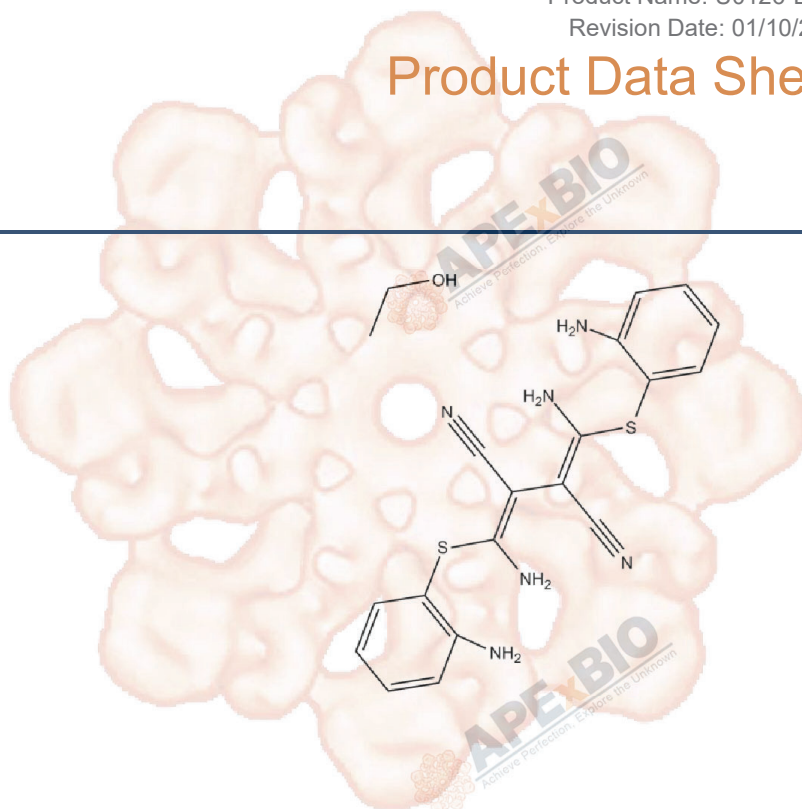


Product Data Sheet

U0126-EtOH

Cat. No.:	A1337
CAS No.:	1173097-76-1
Formula:	C ₁₈ H ₁₆ N ₆ S ₂ ·C ₂ H ₆ O
M.Wt:	426.56
Synonyms:	
Target:	MAPK Signaling
Pathway:	MEK1/2
Storage:	Store at -20°C



Solvent & Solubility

≥21.33 mg/mL in DMSO; insoluble in H₂O; insoluble in EtOH

In Vitro	Preparing Stock Solutions	Mass			
		Solvent Concentration	1mg	5mg	10mg
		1 mM	2.3443 mL	11.7217 mL	23.4434 mL
		5 mM	0.4689 mL	2.3443 mL	4.6887 mL
		10 mM	0.2344 mL	1.1722 mL	2.3443 mL

Please refer to the solubility information to select the appropriate solvent.

Biological Activity

Shortsummary	MEK1/2 inhibitor	
IC ₅₀ & Target	0.07 μM (MEK1), 0.06 μM (MEK2)	
In Vitro	Cell Viability Assay	
	Cell Line:	HT22 cells
	Preparation method:	The solubility of this compound in DMSO is >10 mM. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

	Reacting conditions:	10 μ M, 24 hours
	Applications:	Cells were exposed to 5 mM glutamate with or without different concentrations of the inhibitor. The viability of HT22 cells was determined by MTT assay 24 h after the treatment. The results showed that U0126 inhibited cell death induced by glutamate toxicity dose-dependently. The complete inhibition of cell injury was achieved at 10 μ M, a concentration that specifically inhibits MEK1/2.
In Vivo	Animal experiment	
	Animal models:	Male BALB/c mice
	Dosage form:	Intraperitoneal injection; 7.5, 15 and 30 mg/kg
	Applications:	Mice were sensitized by i.p. injections of 20 μ g of OVA and 4 mg of Al(OH) ₃ . BAL fluid was collected 24 h after the last OVA aerosol challenge. U0126 (7.5, 15, and 30 mg/kg) substantially reduced the total cell number recovered in BAL fluid as compared with PEG control, which was mainly due to a significant reduction in eosinophils in the U0126-treated mice in a dose-dependent manner. U0126 did not show any inhibitory effects on BAL fluid cell counts from sensitized mice challenged with saline aerosol.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

1. White SM, Avantaggiati ML, et al. "YAP/TAZ Inhibition Induces Metabolic and Signaling Rewiring Resulting in Targetable Vulnerabilities in NF2-Deficient Tumor Cells." Dev Cell. 2019 May 6;49(3):425-443.e9.PMID:31063758
2. Huang SZ, Wei MN, et al. "Targeting TF-AKT/ERK-EGFR Pathway Suppresses the Growth of Hepatocellular Carcinoma." Front Oncol. 2019 Mar 15;9:150.PMID:30931258
3. Wang Q, Zhou C, et al. "The involvement of the ERK-MAPK pathway in TGF- β 1-mediated connexin43-gap junction formation in chondrocytes. Connect Tissue Res." 2019 Mar 22:1-10.PMID:30897973
4. Vincent Picher-Martel. "L'implication de l'ubiquiline-2 dans l'agrégation de TDP-43 et la pathogénèse de la sclérose latérale amyotrophique." University Laval. 2019.
5. Chen M, Ye K, et al. "Paris Saponin II inhibits colorectal carcinogenesis by regulating mitochondrial fission and NF- κ B pathway." Pharmacol Res. 2018 Nov 22;139:273-285.PMID:30471409

See more customer validations on www.apexbt.com.

References

- [1] Satoh T, Nakatsuka D, Watanabe Y, et al. Neuroprotection by MAPK/ERK kinase inhibition with U0126 against oxidative stress in a mouse neuronal cell line and rat primary cultured cortical neurons. Neuroscience letters, 2000, 288(2): 163-166.
- [2] Duan W, Chan J H P, Wong C H, et al. Anti-inflammatory effects of mitogen-activated protein kinase kinase inhibitor U0126 in an asthma mouse model. The Journal of Immunology, 2004, 172(11): 7053-7059.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.



APExBIO Technology

www.apexbt.com

7505 Fannin street, Suite 410, Houston, TX 77054.

Tel: +1-832-696-8203 | Fax: +1-832-641-3177 | Email: info@apexbt.com

