



Product Information

Product ID F5668

CAS No. 66575-29-9

Chemical Name (3R,4aR,5S,6S,6aS,10S,10aR,10bS)-5-(Acetyloxy)-3-ethenyldodecahydro-6,10-10b-trihydroxy-3,4a,7,7,10a-pentamethyl-1H-naphtho[2,1-b]pyran-1-one

Synonym Colforsin, Boforsin

Formula C₂₂H₃₄O₇

Formula Wt. 410.50

Melting Point 230-232 °C

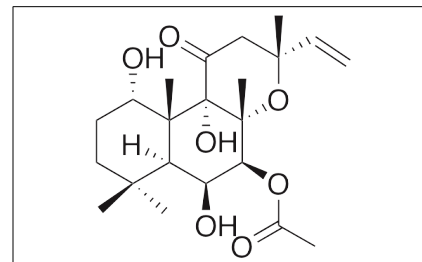
Purity ≥98%

Solubility Soluble in DMSO (5mg/mL)
or ethanol (6 mg/ml).

Store Temp -20 °C

Ship Temp Ambient

Description Forskolin is a labdane diterpene found in *Coleus* that exhibits vasodilatory, immunomodulatory, antihypertensive, anti-inflammatory, and anticancer chemotherapeutic activities. Forskolin activates adenyl cyclase, increasing levels of cAMP and activating PKA. Forskolin decreases intraocular pressure in animal models of glaucoma. Additionally, forskolin inhibits IL-2-induced phosphorylation of STAT5 and activation of JAK3, decreasing T cell proliferation in vivo. This compound also decreases levels of Gli1 mRNA and inhibits Smo activity, suppressing sonic hedgehog (Shh) signaling; this inhibits basal cell carcinoma tumor growth in animal models. Forskolin also activates protein phosphatase 2A (PP2A) and enhances proteasome activity. In airway smooth muscle cells, forskolin inhibits IL-1β-induced expression of IL-8. TEST!!!!!!



Pricing and Availability

Bulk quantities available upon request

| Product ID | Size | List Price |
|------------|-------|------------|
| F5668 | 1 mg | \$30.00 |
| F5668 | 5 mg | \$67.40 |
| F5668 | 10 mg | \$90.00 |

References Rodriguez G, Ross JA, Nagy ZS, et al. Forskolin-inducible cAMP pathway negatively regulates T-cell proliferation by uncoupling the interleukin-2 receptor complex. *J Biol Chem.* 2013 Mar 8;288(10):7137-46. PMID: 23341462.

Makinodan E, Marneros AG. Protein kinase A activation inhibits oncogenic Sonic hedgehog signalling and suppresses basal cell carcinoma of the skin. *Exp Dermatol.* 2012 Nov;21(11):847-52. PMID: 23163650.

Alasbahi RH, Melzig MF. Forskolin and derivatives as tools for studying the role of cAMP. *Pharmazie.* 2012 Jan;67(1):5-13. PMID: 22393824.

Cristóbal I, Garcia-Orti L, Cirauqui C, et al. PP2A impaired activity is a common event in acute myeloid leukemia and its activation by forskolin has a potent anti-leukemic effect. *Leukemia.* 2011 Apr;25(4):606-14. PMID: 21233840.

Asai M, Tsukamoto O, Minamino T, et al. PKA rapidly enhances proteasome assembly and activity in in vivo canine hearts. *J Mol Cell Cardiol.* 2009 Apr;46(4):452-62. PMID: 19059265.

Kaur M, Holden NS, Wilson SM, et al. Effect of beta2-adrenoceptor agonists and other cAMP-elevating agents on inflammatory gene expression in human ASM cells: a role for protein kinase A. *Am J Physiol Lung Cell Mol Physiol.* 2008 Sep;295(3):L505-14. PMID: 18586957.

Zeng S, Shen B, Wen L, et al. Experimental studies of the effect of Forskolin on the lowering of intraocular pressure. *Yan Ke*

Caution: This product is intended for laboratory and research use only. It is not for human or drug use.