

PRODUCT INFORMATION



Forskolin

Item No. 11018

CAS Registry No.: 66575-29-9
Formal Name: 5-(acetyloxy)-3-ethenyldodecahydro-6,10,10b-trihydroxy-3,4a,7,7,10a-pentamethyl-(3R,4aR,5S,6S,6aS,10S,10aR,10bS)-1H-naphtho[2,1-b]pyran-1-one
Synonyms: Coleonol, HL 362, L 75-1362B, NSC 357088, NSC 375489

MF: C₂₂H₃₄O₇

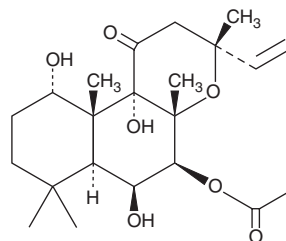
FW: 410.5

Purity: ≥98%

Supplied as: A crystalline solid

Storage: -20°C

Stability: ≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Forskolin is supplied as a crystalline solid. A stock solution may be made by dissolving the forskolin in the solvent of choice, which should be purged with an inert gas. Forskolin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of forskolin in ethanol is approximately 15 mg/ml and approximately 30 mg/ml in DMSO and DMF.

Forskolin is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, forskolin should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Forskolin has a solubility of approximately 0.1 mg/ml in a 1:10 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Forskolin is a naturally occurring diterpene that is produced by the Indian Coleus plant (*C. forskohlii*).¹ It directly activates adenylyl cyclase through its catalytic subunit and is commonly used to raise levels of cAMP in a wide variety of intact cells and tissue preparations.² Forskolin binds to adenylyl cyclase in membranes from stably transfected Sf9 cells expressing type 1 adenylyl cyclase with an IC₅₀ value of 41 nM and demonstrates an EC₅₀ value of 0.5 μM in an activation assay assessing formation of cAMP from ATP.¹ Forskolin also interacts with glucose transporters and certain ion channels and has been used for examining adenylyl cyclase expression, regulation, and G protein signaling.²

References

1. Robbins, J.D., Boring, D.L., Tang, W.J., *et al.* Forskolin carbamates: Binding and activation studies with type I adenylyl cyclase. *J. Med. Chem.* **39**(14), 2745-2752 (1996).
2. Insel, P.A. and Ostrom, R.S. Forskolin as a tool for examining adenylyl cyclase expression, regulation, and G protein signaling. *Cell Mol. Neurobiol.* **23**(3), 305-314 (2003).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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