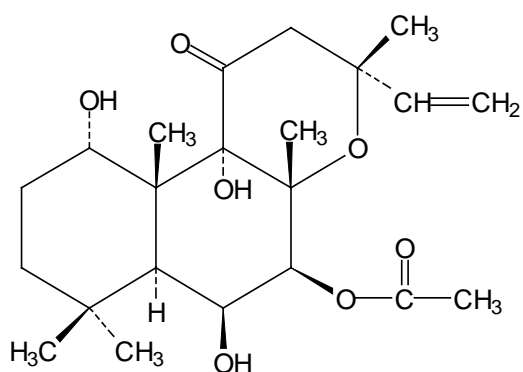


FORSKOLINProduct Number **F6886**

Storage Temperature RT

CAS #: 66575-29-9

Synonyms: Colforsin; 7-beta-acetoxy-8,13-epoxy-1-alpha, 6-beta, 9-alpha-trihydroxylabd-14-en-11-one; Coleonol

Product Description

Appearance: White to white with yellow cast powder

Melting Point: 230-232°C¹Molecular formula: C₂₂H₃₄O₇

Molecular weight: 410.5 (anhydrous)

Specific Rotation: -26.19° where c = 1.68% in chloroform at 25°C²Absorbance max: 210 nm (E molar = 1000)
305 nm (E molar = 50)³

Purity: Not less than 98% (HPLC)

Forskolin is a labdane diterpenoid with antihypertensive, positive inotropic, platelet aggregation inhibitory and adenylate cyclase activating properties.⁶ The activation of adenylate cyclase results in increased intracellular cyclic AMP in most tissue and cells.

Product Information

Sigma's product is prepared by grinding *Coleus forskohlii* roots followed by extraction and then purification by silica chromatography.

Preparation Instructions

Forskolin is soluble in organic solvents such as ethanol, chloroform and DMSO. Sigma routinely tests its solubility in chloroform at 50 mg/mL and observes a clear, colorless to pale yellow solution. Forskolin is soluble in water (with 2% ethanol) up to 0.2 mM by first dissolving in ethanol at 5 mg/mL and doing subsequent dilutions with water. Similar results were found with DMSO.⁴ Please note, however, that various solvents, including ethanol, inhibited the forskolin activation of adenylate cyclase. DMSO is recommended for preparing forskolin solutions because at concentrations of 5% or less of DMSO, there is little if any inhibition of forskolin activation.⁵

Forskolin solutions at 5 mg/mL in either ethanol or DMSO were stable for at least 6 months at room temperature per HPLC analysis.⁴

Storage/Stability

When stored as indicated Forskolin has a shelf-life of five years.

References

1. Bhat, S.V., *et al.*, J. Med. Chem. 26, 486-492 (1983).
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4. Sigma Data.
5. Huang, R., *et al.*, J. Cyclic Nucleotide Research 8, 385 (1982).
6. De Souza, N.J., *et al.*, Medicinal Research Reviews 3(2), 01-219 (1983).

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