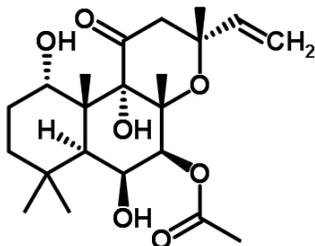




Product Specification Sheet

Product Name	Stemolecule™ Forskolin
Description	Stemolecule Forskolin is a natural compound produced by the Indian Coleus plant (<i>Coleus forskohlii</i>) ¹ . It is used in several differentiation protocols for its ability to potentiate neuron differentiation ^{2,3} . Forskolin is able to stimulate adenylate cyclase activity and increases cyclic AMP ⁴ . Cyclic AMP is a signaling molecule and key regulator of critical enzymes in cellular processes ⁵ . For example, cAMP can bind to protein kinase A (PKA) regulatory subunit and activate PKA which acts as a negative regulator of the hedgehog signaling pathway ⁶ .
Catalog Number	04-0025
Size	10 mg
Alternate Name	[(3R,4aR,5S,6S,6aS,10S,10aR,10bS)-3-ethenyl-6,10,10b-trihydroxy-3,4a,7,7,10a-pentamethyl-1-oxo-5,6,6a,8,9,10-hexahydro-2H-benzo[f]chromen-5-yl]acetate
Chemical Formula	C ₂₂ H ₃₄ O ₇
Structure	
Molecular Weight	410.50
CAS Number	66428-89-5
Purity	Greater than 97% by HPLC analysis
Formulation	White crystalline powder
Solubility	For a 10 mM concentrated stock solution of Forskolin, reconstitute the compound by adding 2.44 ml of DMSO to the entire contents of the vial. If precipitate is observed, warm the solution to 37°C for 2 to 5 minutes. For cell culture, the media should be prewarmed prior to adding the reconstituted compound. Note: for most cells, the maximum tolerance to DMSO is less than 0.5%. This molecule is soluble in DMSO at 100 mM.
Storage and Stability	Store powder at 4°C protected from light. Following reconstitution, store aliquots at -20°C. Stock solutions are stable for 6 months when stored as directed.
Quality Control	The purity of Forskolin was determined by HPLC analysis. The accurate mass was determined by mass spectrometry. Cellular toxicity of Forskolin was tested on mouse embryonic stem cells.

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Product Specification Sheet

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