Cat No. 86-G99

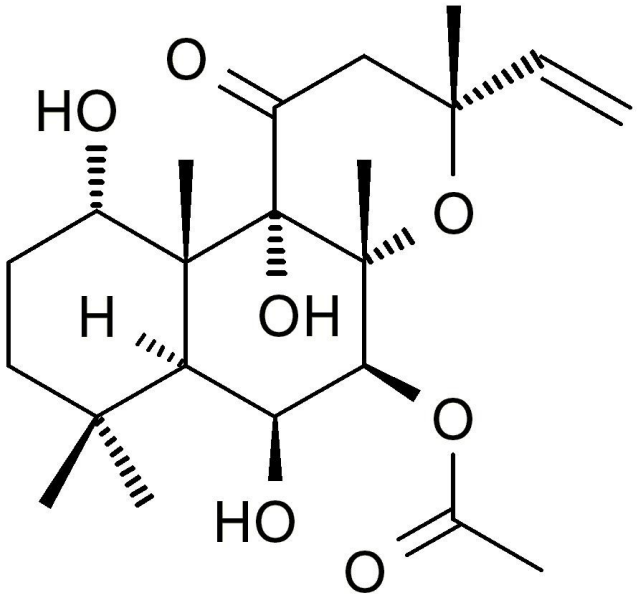
Forskolin

10 mg

For research purposes only

Forskolin is a cell-permeable diterpenoid that possesses anti-hypertensive, positive inotropic, and adenylyl cyclase activating properties. Many of its biological effects are due to its activation of adenylyl cyclase and the resulting increase in intracellular cAMP concentration. Cyclic AMP is a signaling molecule and key regulator of critical enzymes in cellular processes. Forskolin has been used in several protocols involving neuron differentiation. Forskolin has also been shown to effect calcium currents and inhibit MAP kinase.

TECHNICAL INFORMATION



Other Names: Colforsin

Chemical Formula: $C_{22}H_{34}O_7$

CAS Number: 6575-29-9

Molecular Weight: 410.50

Purity: >98%

Appearance: a crystalline solid

Solubility: DMSO

STORAGE AND HANDLING

Storage: Store at 4°C and protected from light. Following reconstitution, store aliquots at -20°C.

Stability: Stock solutions stable at -20°C for up to 2 years.

Shipping Conditions: Shipped at room temperature.

PRODUCT USE

Soluble in DMSO. For a 10mM concentrated stock solution, reconstitute the compound by adding 2.44 ml of DMSO to the entire contents of the vial. . If precipitate is observed, vortex for 5 minutes. For most cells, the maximum tolerance to DMSO is less than 0.5%.

REFERENCES

1. Jang et al. (2010) Functional neual differentiation of human adipose tissue-derived stem cells using bFGF and forskolin. BMC Cell Biol. 11:25.
2. Martin et al. (1994) Forskolin specifically inhibits the bacterial galactose-H+ transport protein, GalP. J Biol Chem. 269(40):24870-7.
3. Son et al. (2001) Pairing of forskolin and KCl increases differentiation of immortalized hippocampal neurons in a CREB Serine 133 phosphorylation-dependent and extracellular-regulated protein kinase-independent manner. Neurosci Lett. 308(1):37-40.