

Forskolin

Catalog No: tcsc1454



Available Sizes

Size: 10mg

Size: 50mg

Size: 100mg

Size: 200mg

Size: 500mg

Size: 1g

Size: 2g



Specifications

CAS No:

66575-29-9

Formula:

$C_{22}H_{34}O_7$

Pathway:

GPCR/G Protein

Target:

Adenylate Cyclase

Purity / Grade:

>98%

Solubility:

DMSO : ≥ 32 mg/mL (77.95 mM)

Alternative Names:

Coleonol;Colforsin

Observed Molecular Weight:

410.5

Product Description

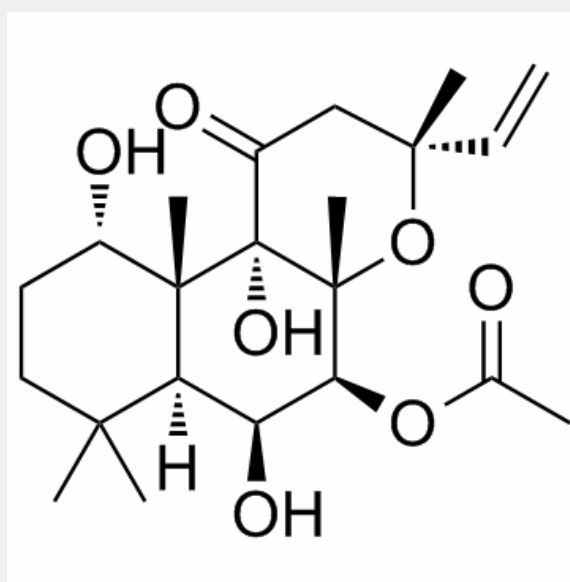
Forskolin is a potent **adenylate cyclase** activator, with binding (**IC₅₀**=41 nM) to and activation (**EC₅₀**=0.5 μM) of **type I adenylyl cyclase**.

IC50 & Target: IC50: 41 nM (Adenylyl cyclase)^[1]

EC50: 0.5 μM (Adenylyl cyclase)^[1]

In Vitro: Forskolin (Fsk) is a naturally occurring diterpene isolated from *Coleus forskholii*, directly activates adenylyl cyclase (AC) through its catalytic subunit to increase intracellular levels of cyclic adenosine monophosphate (cAMP)^[1]. Forskolin (Fsk) affects the proliferation of the human T-cell lines such as Kit 225 and MT-2. Forskolin treatment inhibits the proliferation of both Kit 225 and MT-2 cells in a dose-dependent manner with an IC₅₀ equal to ~5 μM Fsk. Forskolin treatment (10-100 μM) increases cAMPi levels ~5- to 20-fold above basal levels, which reach maximum levels between 50-100 μM Forskolin^[2].

In Vivo: The Forskolin (Fsk)-treated Mrp4^{-/-} mice shows an increased number of Ki67-positive and cleaved caspase 3-positive ECs, a significant decrease in the amount of pericyte coverage, and a reduced number of empty sleeves. In pups exposed to hyperoxia (75% oxygen) from P7 to P12, the Mrp4^{-/-} mice shows a significant increase in the unvascularized retinal area^[3]. The average blood glucose in the healthy rat group is 102.12±1.94 mg/dL, 101.25±3.56 for control group and 103±2.08 in forskolin group. The data shows that glucose levels at the end of the study are lower in forskolin group, with a significant difference according to the statistical tests applied (p=0.03)^[4].



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!