

## Forskolin

货号: F1051

储存条件: 粉末-20°C可保存3年; 液体-80°C可保存12月。

### 产品描述

Forskolin is a strong adenylate cyclase activator with an IC<sub>50</sub> of 41 nM. Forskolin can activate adenylyl cyclase in broken cell preparations as well as in intact tissues, thereby resulting in marked increases of intracellular cyclic adenosine phosphate (cAMP) accumulation. cAMP as a second messenger plays very important roles in biological processes. Forskolin elicits cellular responses which have been proposed to be dependent on cyclic AMP. In vitro studies have shown that forskolin significantly stimulated vasopressin (AVP) and oxytocin (OT) secretion from the rat neurohypophysis in a dose-dependent manner. Moreover, addition of forskolin to the rat hypothalamic SON in vitro increase cAMP accumulation, and Forskolin elicited a 3-fold greater increase in cyclic AMP in the neural lobe of the pituitary in vitro.

In human mesenchymal stromal cells (hMSCs), the use of Forskolin in different concentrations inhibits cell proliferation. At the same time, Forskolin induced alkaline phosphatase levels, bone-specific target genes, and secretion of insulin-like growth factor-1 in a manner related to concentration. The effect of forskolin on in vivo shows that bone formation ability significantly enhance after treatment of hMSCs with forskolin. In addition, 0.10mM forskolin displayed larger amounts of bone by pretreating hMSCs before implantation, compared with with 0.15 mM forskolin. Importantly, Forskolin has been shown to have a number of relevant anticancer effects, such as the induction of mesenchymal-to-epithelial transition, the inhibition of proliferation, motility, and migration in many types of cancer cells, indicating its perspectives as an effective anticancer agent.

### 作用机制

Forskolin is a strong adenylate cyclase activator via an interaction with the catalytic subunit of adenylate cyclase, directly activating the adenylate cyclase enzyme and raising intracellular cAMP levels.

### 产品信息

CAS号	66575-29-9	
分子式	C <sub>22</sub> H <sub>34</sub> O <sub>7</sub>	
分子量	410.50	
溶解度	DMSO	600.0 mg/mL (1461.6 mM)
	Water	insoluble





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