**Isoforskolin**  
**Item No. 11716**

**CAS Registry No.:** 64657-21-2  
**Formal Name:** (3R,6S,6aS)-6-(acetyloxy)-3-ethenylidodecahydro-5S,10S,10bS-trihydroxy-3,4aR,7,7,10aR-pentamethyl-1H-naphtho[2,1-b]pyran-1-one

**MF:** C_{22}H_{34}O_{7}  
**FW:** 410.5  
**Purity:** ≥98%  
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:** ≥2 years

*Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.*

**Laboratory Procedures**

Isoforskolin is supplied as a solid. A stock solution may be made by dissolving the isoforskolin in the solvent of choice. Isoforskolin is soluble in organic solvents such as chloroform and DMSO, which should be purged with an inert gas.

**Description**

Isoforskolin is a naturally occurring diterpene originally isolated from the Indian coleus plant *C. forskohlii*.

It demonstrates positive inotropic effects *ex vivo* in guinea pig atria (EC_{50} = 1.09 μM).

In vivo, isoforskolin is antihypertensive, decreasing systolic blood pressure by 28 mmHg in spontaneously hypertensive rats when administered at 25 mg/kg per day, p.o. for 5 days. Pretreatment of rats with isoforskolin (10 mg/kg, i.p.) decreases LPS-induced lung injury by decreasing karyocyte, neutrophil count, and protein content in bronchoalveolar lavage fluid, and ameliorating LPS-induced lung morphological changes.

Isoforskolin (1 mg/kg, i.p.) decreases mean arthritis index in a mouse model of Lyme arthritis induced by injection of *B. burgdorferi* basic membrane protein A (BmpA) into the tibiotarsal joint cavity.

Isoforskolin also activates membranous mammalian adenylyl cyclase (AC) expressed in insect cells (EC_{50} = 0.8, 13.3, and 7.4 μM for AC1, AC2, and AC5, respectively).

**References**