



# **Certificate of Analysis**

www.tocris.com

Product Name: Honokiol Catalog No.: 4590 Batch No.: 1

CAS Number: 35354-74-6

IUPAC Name: 5,3'-Diallyl-2,4'-dihydroxybiphenyl

# 1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{18}H_{18}O_2$ Batch Molecular Weight:266.33Physical Appearance:White solid

**Solubility:** DMSO to 100 mM

ethanol to 100 mM

Storage: Store at +4°C

**Batch Molecular Structure:** 

### 2. ANALYTICAL DATA

HPLC: Shows 99.9% purity

<sup>1</sup>H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis: Carbon Hydrogen Nitrogen

Theoretical 81.17 6.81 Found 81.18 6.84



# **Product Information**

Print Date: Feb 23<sup>rd</sup> 2016

www.tocris.com

Product Name: Honokiol Catalog No.: 4590 Batch No.: 1

CAS Number: 35354-74-6

IUPAC Name: 5,3'-Diallyl-2,4'-dihydroxybiphenyl

## **Description:**

Anti-inflammatory, antioxidant, antitumor and antiangiogenic agent. Blocks NF-κB activation by a variety of stimuli, including TNF and okadaic acid. Shown to scavenge superoxide and peroxyl radicals. Also inhibits a variety of inflammatory responses. Reverses cardiac hypertrophy in mice via SIRT3 activation.

## **Physical and Chemical Properties:**

Batch Molecular Formula: C<sub>18</sub>H<sub>18</sub>O<sub>2</sub> Batch Molecular Weight: 266.33 Physical Appearance: White solid

Minimum Purity: >98%

#### **Batch Molecular Structure:**

Storage: Store at +4°C

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

#### Solubility & Usage Info:

DMSO to 100 mM ethanol to 100 mM

### Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

#### References:

**Bai** et al (2003) Honokiol, a small molecular weight natural product, inhibits angiogenesis in vitro and tumor growth in vivo. J.Biol.Chem. **278** 35501. PMID: 12816951.

Ahn et al (2006) Honokiol potentiates apoptosis, suppresses osteoclastogenesis, and inhibits invasion through modulation of nuclear factor-κB activation pathway. Mol.Cancer Res. 4 621. PMID: 16966432.

Kim and Cho (2008) Anti-inflammatory effect of honokiol is mediated by PI3K/Akt pathway suppression. Acta Pharmacol.Sinica **29** 113. PMID: 18158873.

**Dikalov** *et al* (2008) Honokiol is a potent scavenger of superoxide and peroxyl radicals. Biochem.Pharmacol. **76** 589. PMID: 18640101. **Pillai** *et al* (2015) Nat.Commun. **6** 6656. PMID: 25871545.