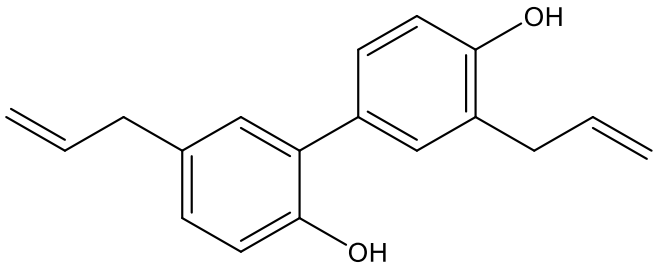
Catalog # 10-2311

Honokiol

CAS# 35354-74-6

3',5-Diallyl-[1,1'-biphenyl]-2,4'-diol; NSC-293100

Lot # X105411



Honokiol is a natural product that acts as a SIRT3 activator. It increases mitochondrial oxygen consumption and reduces ROS production in wild type but not SIRT3-KO cells.[1] It reversed cardiac hypertrophy in mice[1] and rescued myocardial and mitochondrial energetics in type 2 diabetic rats[2]. It was shown to increase SIRT3 expression in the hippocampus and attenuated surgery-induced memory loss, neuronal apoptosis, neuroinflammation and oxidative damage.[3] It increases expression of adipocyte gene markers, gene-involved lipolysis and glucose transport and in general, promotes insulin sensitivity.[4]

1) Pillai *et al.* (2015), *Honokiol blocks and reverses cardiac hypertrophy in mice by activating mitochondrial SIRT3;* Nat. Commun. **6** 6656
2) Kerr *et al.* (2020), *Rescue of myocardial dysfunction in diabetes through the correction of mitochondrial hyperacetylation by honokiol;* JCI Insight **5** e140326
3) Ye *et al.* (2019), *SIRT3 activator honokiol ameliorates surgery/anesthesia-induced cognitive decline in mice through anti-oxidative stress and anti-inflammatory in hippocampus;* CNS Neurosci. **25** 355
4) Lee *et al.* (2022), *Sirt3 Pharmacologically Promotes Insulin Sensitivity through PI3/AKT/mTOR and Their Downstream Pathway in Adipocytes;* Int. J. Mol. Sci. **23** 3740

PHYSICAL DATA

Molecular Weight:	266.34
Molecular Formula:	$C_{18}H_{18}O_2$
Purity:	>98% TLC/GC
	NMR: (Conforms)
Solubility:	Soluble in DMSO (50 mg/ml)
Physical Description:	Beige solid
Storage and Stability:	Store as supplied at -20ºC for up to 2 years from the date of purchase. Store solutions at -20ºC for up to 3 months.

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