# **PRODUCT** INFORMATION



## Colupulone

Item No. 34048

CAS Registry No.: Formal Name:	468-27-9 3,5-dihydroxy-2,6,6- <i>tris</i> (3-methyl-2-buten-1-yl)-4- (2-methyl-1-oxopropyl)-2,4-cyclohexadien-1-one	но ОН
Synonym:	NSC 650561	
MF:	C <sub>25</sub> H <sub>36</sub> O <sub>4</sub>	
FW:	400.6	
Purity:	≥95% (mixture of isomers)	
Supplied as:	A solid	
Storage:	-20°C	
Stability:	≥4 years	
Item Origin:	Synthetic	
Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.		

#### Laboratory Procedures

Colupulone is supplied as a solid. A stock solution may be made by dissolving the colupulone in the solvent of choice, which should be purged with an inert gas. Colupulone is soluble in methanol and DMSO.

### Description

Colupulone is a  $\beta$ -acid that has been found in *H. lupulus* and has diverse biological activities.<sup>1-3</sup> It activates the pregnane X receptor (PXR) in a reporter assay when used at concentrations of 1, 3, and 10  $\mu$ M.<sup>1</sup> Dietary administration of colupulone (0.18% w/w) induces hepatic cytochrome P450 (CYP) isoform 3A (CYP3A) activity in mice.<sup>2</sup> It also decreases serum glucose levels in non-diabetic mice and increases serum glucose levels in db/db mice.3

### References

- 1. Teotico, D.G., Bischof, J.J., Peng, L., et al. Structural basis of human pregnane X receptor activation by the hops constituent colupulone. Mol. Pharmacol. 74(6), 1512-1520 (2008).
- 2. Mannering, G.J., Shoeman, J.A., and Deloria, L.B. Identification of the antibiotic hops component, colupulone, as an inducer of hepatic cytochrome P-4503A in the mouse. Drug Metab. Dispos. 20(2), 142-147 (1992).
- 3. Mannering, G.J., Shoeman, J.A., and Shoeman, D.W. Effects of colupulone, a component of hops and brewers yeast, and chromium on glucose tolerance and hepatic cytochrome P450 in nondiabetic and spontaneously diabetic mice. Biochem. Biophys. Res. Commun. 200(3), 1455-1462 (1994).

WARNING THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFFTY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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