

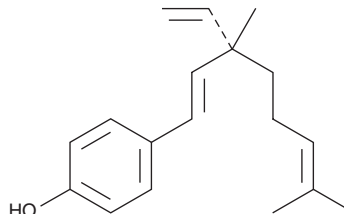
# PRODUCT INFORMATION



## Bakuchiol

Item No. 11684

**CAS Registry No.:** 10309-37-2  
**Formal Name:** 4-[(1E,3S)-3-ethenyl-3,7-dimethyl-1,6-octadien-1-yl]-phenol  
**Synonym:** (S)-(+)-Bakuchiol  
**MF:** C<sub>18</sub>H<sub>24</sub>O  
**FW:** 256.4  
**Purity:** ≥95%  
**UV/Vis.:** λ<sub>max</sub>: 207, 263 nm  
**Supplied as:** A neat oil  
**Storage:** -20°C  
**Stability:** ≥4 years  
**Item Origin:** Plant/*Psoralea corylifolia*



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

### Laboratory Procedures

Bakuchiol is supplied as a neat oil. A stock solution may be made by dissolving the bakuchiol in the solvent of choice, which should be purged with an inert gas. Bakuchiol is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of bakuchiol in these solvents is approximately 30 mg/ml.

Bakuchiol is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, bakuchiol should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Bakuchiol has a solubility of approximately 0.25 mg/ml in a 1:2 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

Bakuchiol is a natural meroterpene isolated from *P. corylifolia*, a plant used in traditional Asian medicine. In addition to having antioxidant and antibacterial actions, bakuchiol has retinol-like effects on gene expression and properties of the skin.<sup>1-3</sup> Bakuchiol also inhibits DNA polymerase and UDP-glucuronosyltransferase 2B7 (IC<sub>50</sub> = 41 μM).<sup>4,5</sup>

### References

1. Katsura, H., Tsukiyama, R.I., Suzuki, A., *et al.* *In vitro* antimicrobial activities of bakuchiol against oral microorganisms. *Antimicrob. Agents Chemother.* **45(11)**, 3009-3013 (2001).
2. Adhikari, S., Indira Priyadarshini, K., and Mukherjee, T. Physico-chemical studies on the evaluation of the antioxidant activity of herbal extracts and active principles of some Indian medicinal plants. *J. Clin. Biochem. Nutr.* **40(3)**, 174-183 (2007).
3. Chaudhuri, R.K. and Bojanowski, K. Bakuchiol: A retinol-like functional compound revealed by gene expression profiling and clinically proven to have anti-aging effects. *Int. J. Cosmet. Sci.* **36(3)**, 221-230 (2014).
4. Sun, N.J., Woo, S.H., Cassady, J.M., *et al.* DNA polymerase and topoisomerase II inhibitors from *Psoralea corylifolia*. *J. Nat. Prod.* **61(3)**, 362-366 (1998).
5. Xu, Y., Li, P., Zhang, X., *et al.* *In vitro* evidence for bakuchiol's influence towards drug metabolism through inhibition of UDP-glucuronosyltransferase (UGT) 2B7. *Afr. Health Sci.* **14(3)**, 564-569 (2014).

#### WARNING

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

#### SAFETY 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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