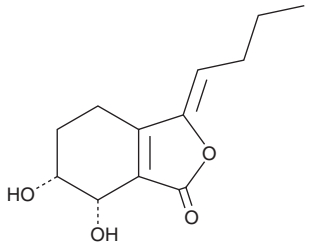
# PRODUCT INFORMATION

## Senkyunolide H

*Item No. 35142*

**CAS Registry No.:** 94596-27-7
**Formal Name:** (3Z,6R,7S)-*rel*-3-butylidene-4,5,6,7-tetrahydro-6,7-dihydroxy-1(3H)-isobenzofuranone
**MF:** $C_{12}H_{16}O_4$
**FW:** 224.3
**Purity:** ≥95%
**UV/Vis.:** $\lambda_{max}$: 274 nm
**Supplied as:** A solid
**Storage:** -20°C
**Stability:** ≥4 years
**Item Origin:** Plant/*Angelica sinensis*




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

### Laboratory Procedures

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

### Description

Senkyunolide H is a phthalide that has been found in *L. chuanxiong* and has diverse biological activities.[1-4] It increases levels of heme oxygenase-1 (HO-1) in HepG2 cells, as well as reduces hydrogen peroxide-induced increases in reactive oxygen species (ROS) and malondialdehyde (MDA) in the same cells when used at concentrations of 150 and 200 µg/ml.[2] Senkyunolide H inhibits the proliferation of primary mouse aorta smooth muscle cells ($IC_{50}$ = <0.1 µg/ml).[3] It decreases bone resorption in ovariectomized mice when administered at a dose of 15 mg/kg.[4]

### References


1. Yan, R., Li, S.-L., Chung, H.-S., *et al.* Simultaneous quantification of 12 bioactive components of *Ligusticum chuanxiong* Hort. by high-performance liquid chromatography. *J. Pharm. Biomed. Anal.* **37(1)**, 87-95 (2005).
2. Qi, H., Siu, S.O., Chen, Y., *et al.* Senkyunolides reduce hydrogen peroxide-induced oxidative damage in human liver HepG2 cells via induction of heme oxygenase-1. *Chem. Biol. Interact.* **183(3)**, 380-389 (2010).
3. Kobayashi, S., Mimura, Y., Notoya, K., *et al.* Antiproliferative effects of the traditional Chinese medicine *shimotsu-to*, its component cnidium rhizome and derived compounds on primary cultures of mouse aorta smooth muscle cells. *Jpn. J. Pharmacol.* **60(4)**, 397-401 (1992).
4. Yang, D., Liu, T., Jiang, G., *et al.* Senkyunolide H attenuates osteoclastogenesis and postmenopausal osteoporosis by regulating the NF-κB, JNK and ERK signaling pathways. *Biochem. Biophys. Res. Commun.* **533(3)**, 510-518 (2020).





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