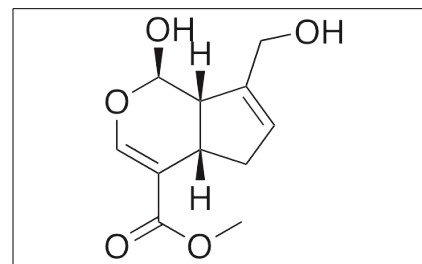


Product Information

Product ID G1853
CAS No. 6902-77-8
Chemical Name

Synonym

Formula $C_{11}H_{14}O_5$
Formula Wt. 226.23
Melting Point
Purity $\geq 98\%$
Solubility



Bulk quantities available upon request

| Product ID | Size |
|------------|--------|
| G1853 | 25 mg |
| G1853 | 100 mg |

Store Temp Ambient
Ship Temp Ambient

Description Genipin is an iridoid glycoside compound found in zhishi or *Gardenia jasminoides*; it is most well known for its protein cross-linking ability. Genipin displays anti-amnesic, wound healing, anticancer, neuroprotective, cognition enhancing, anti-inflammatory, and antioxidative activities. In animal models, genipin inhibits acetylcholine esterase (AChE), attenuating scopolamine-induced memory impairment. In ex vivo and in vivo models, genipin increases wound healing by inducing cross-linking of collagen. Genipin also exerts anticancer activity, as it increases the Bax/Bcl-2 ratio and induces PARP cleavage and caspase-3- and caspase-9-mediated apoptosis in non-small cell lung cancer (NSCLC) cells. In animal models, this compound upregulates nNOS and decreases acute inflammation through inhibition of LPS-induced NF- κ B activity. Additionally, genipin inhibits Toll-like receptor (TLR) signaling and the production of pro-inflammatory cytokines, preventing sepsis and increasing survival in animal models of infection. Genipin also upregulates mitochondrial uncoupling protein 2 (UCP2) levels in the kidney, postponing progression of diabetic neuropathy in vivo.

References Liu TX, Wang Z. Collagen crosslinking of porcine sclera using genipin. *Acta Ophthalmol.* 2013 Jun;91(4):e253-7. PMID: 23710671.

Nam Y, Lee D. Ameliorating effect of zhizi (*Fructus gardeniae*) extract and its glycosides on scopolamine-induced memory impairment. *J Tradit Chin Med.* 2013 Apr;33(2):223-7. PMID: 23789221.

Yang X, Yao J, Luo Y, et al. P38 MAP kinase mediates apoptosis after genipin treatment in non-small-cell lung cancer H1299 cells via a mitochondrial apoptotic cascade. *J Pharmacol Sci.* 2013;121(4):272-81. PMID: 23603895.

Aramwit P, Siritienthong T, Srichana T, et al. Accelerated healing of full-thickness wounds by genipin-crosslinked silk sericin/PVA scaffolds. *Cells Tissues Organs.* 2013;197(3):224-38. PMID: 23307034.

Mu C, Zhang K, Lin W, et al. Ring-opening polymerization of genipin and its long-range crosslinking effect on collagen hydrogel. *J Biomed Mater Res A.* 2013 Feb;101(2):385-93. PMID: 22847997.

Qiu W, Zhou Y, Jiang L, et al. Genipin inhibits mitochondrial uncoupling protein 2 expression and ameliorates podocyte injury in diabetic mice. *PLoS One.* 2012;7(7):e41391. PMID: 22848482.

Li CC, Hsiang CY, Lo HY, et al. Genipin inhibits lipopolysaccharide-induced acute systemic inflammation in mice as evidenced by nuclear factor- κ B bioluminescent imaging-guided transcriptomic analysis. *Food Chem Toxicol.* 2012 Sep;50(9):2978-86. PMID: 22687549.

Caution: This product is intended for laboratory and research use only. It is not for human or drug use.