

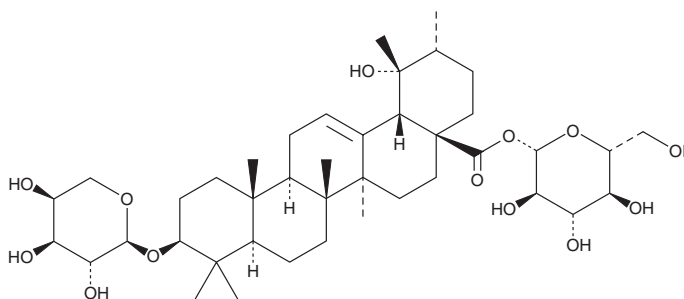
# PRODUCT INFORMATION



## Ziyuglycoside I

Item No. 37320

**CAS Registry No.:** 35286-58-9  
**Formal Name:** 3β-(α-L-arabinopyranosyloxy)-19-hydroxy-urs-12-en-28-oic acid, β-D-glucopyranosyl ester  
**Synonym:** Gouguside 7  
**MF:** C<sub>41</sub>H<sub>66</sub>O<sub>13</sub>  
**FW:** 767.0  
**Purity:** ≥98%  
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:** ≥4 years  
**Item Origin:** Plant/*Sanguisorba officinalis*



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

### Laboratory Procedures

Ziyuglycoside I is supplied as a solid. A stock solution may be made by dissolving the ziyuglycoside I in the solvent of choice, which should be purged with an inert gas. Ziyuglycoside I is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of ziyuglycoside I in DMF is approximately 10 mg/ml and approximately 5 mg/ml in ethanol and DMSO.

### Description

Ziyuglycoside I is a triterpenoid saponin that has been found in *Sanguisorba officinalis* and has diverse biological activities.<sup>1-3</sup> It increases the synthesis of type I collagen in CCD-1064Sk human fibroblast cells in a concentration-dependent manner.<sup>1</sup> Ziyuglycoside I inhibits the proliferation of MDA-MB-231 breast cancer cells (IC<sub>50</sub> = 13.96 μM).<sup>3</sup> It induces apoptosis and also increases levels of the cell cycle mediator p53 and the cyclin-dependent kinase inhibitor p21<sup>WAF1</sup> in MDA-MB-231 cells in a concentration-dependent manner. Formulations containing ziyuglycoside I have been used in cosmetics as anti-wrinkle agents.

### References

1. Kim, Y.H., Chung, C.B., Kim, J.G., *et al.* Anti-wrinkle activity of ziyuglycoside I isolated from a *Sanguisorba officinalis* root extract and its application as a cosmeceutical ingredient. *Biosci. Biotechnol. Biochem.* **72(2)**, 303-311 (2008).
2. Xiong, Y., Zou, Y., Chen, L., *et al.* Development and *in vivo* evaluation of ziyuglycoside I-loaded self-microemulsifying formulation for activity of increasing leukocyte. *AAPS PharmSciTech* **20(3)**, 101 (2019).
3. Zhu, X., Wang, K., Zhang, K., *et al.* Ziyuglycoside I Inhibits the proliferation of MDA-MB-231 breast carcinoma cells through inducing p53-mediated G2/M cell cycle arrest and intrinsic/extrinsic apoptosis. *Int. J. Mol. Sci.* **17(11)**, 1903 (2016).

#### 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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