PRODUCT INFORMATION



Genipin 1-gentiobioside

Item No. 35621

CAS Registry No.:	29307-60-6		
Formal Name:	(1S,4aS,7aS)-1-[(6-O-β-D-glucopyranosyl-β-	ОН	
	D-glucopyranosyl)oxy]-1,4a,5,7a-tetrahydro-		
	7-(hydroxymethyl)-cyclopenta[c]pyran-4-	HU.	ОП
	carboxylic acid, methyl ester		0 0 0
Synonym:	Genipin-1-β-D-gentiobioside		О. ОН
MF:	$C_{23}H_{34}O_{15}$		\downarrow \downarrow
FW:	550.5		но
Purity:	≥98%		ÓН
UV/Vis.:	λ _{max} : 236 nm	Η	
Supplied as:	A solid	0	
Storage:	-20°C	0	
Stability:	≥4 years	I	
Item Origin:	Plant/Gardenia jasminoides		

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

Laboratory Procedures

Genipin 1-gentiobioside is supplied as a solid. A stock solution may be made by dissolving the genipin 1-gentiobioside in the solvent of choice, which should be purged with an inert gas. Genipin 1-gentiobioside is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of genipin 1-gentiobioside in these solvents is approximately 5 and 3 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of genipin 1-gentiobioside can be prepared by directly dissolving the solid in aqueous buffers. The solubility of genipin 1-gentiobioside in PBS (pH 7.2) is approximately 5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Genipin 1-gentiobioside is an iridoid glycoside that has been found in G. jasminoides and has diverse biological activities.¹⁻³ It inhibits acetylcholinesterase (AChE) by 60.23% when used at a concentration of $25 \,\mu$ g/ml.¹ Genipin 1-gentiobioside (50-500 μ g/ml) is cytotoxic to BRL 3A rat liver fibroblasts.² It inhibits the germination of G. jasminoides and N. offinicale seeds and the growth of B. rapa roots.³ Genipin 1-gentiobioside (2.5 mg/kg) prevents scopolamine-induced increases in escape latency in the Morris water maze in mice.¹

References

- 1. Kwak, J.H. and Lee, D.-U. Structure-antiamnesic activity relationship of iridoid glycosides from gardenia fruits. Chem. Lett. 44(6), 837-839 (2017).
- 2. Li, C., Lan, M., Lv, J., et al. Screening of the hepatotoxic components in Fructus Gardeniae and their effects on rat liver BRL-3A cells. Molecules 24(21), 3920 (2019).
- 3. Shimomura, H., Sashida, Y., Nakata, H., et al. Germination and growth inhibitors in fruits of Gardenia jasminoides. Plant Cell Physiol. 24(1), 123-126 (1983).

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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