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Print Date: Mar 24th 2016

Certificate of Analysis

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Product Name: **Phlorizin** **Catalog No.: 4627** **Batch No.: 1**

CAS Number: 60-81-1 EC Number: 200-487-1

IUPAC Name: 1-[2-(β-D-Glucopyranosyloxy)-4,6-dihydroxyphenyl]-3-(4-hydroxyphenyl)-1-propanone

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{21}H_{24}O_{10}.1\frac{1}{2}H_2O$

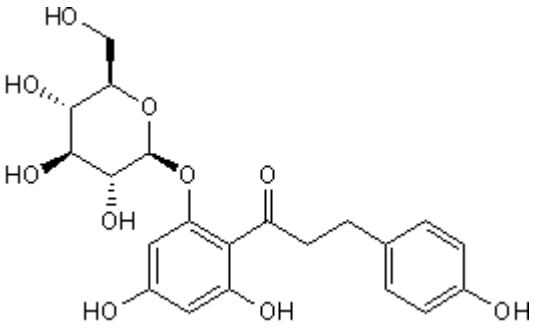
Batch Molecular Weight: 463.43

Physical Appearance: White solid

Solubility: DMSO to 100 mM
ethanol to 100 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.3% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Optical Rotation: $[\alpha]_D$ = +57.9 (Concentration = 0.4, Solvent = Methanol)

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	54.43	5.87	
Found	54.51	5.87	

bio-techne.com
info@bio-techne.com
techsupport@bio-techne.com

North America
Tel: (800) 343 7475

China
info.cn@bio-techne.com
Tel: +86 (21) 52380373

Europe Middle East Africa
Tel: +44 (0)1235 529449

Rest of World
www.tocris.com/distributors
Tel:+1 612 379 2956

Product Information

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CAS Number: 60-81-1 EC Number: 200-487-1

IUPAC Name: 1-[2-(β-D-Glucopyranosyloxy)-4,6-dihydroxyphenyl]-3-(4-hydroxyphenyl)-1-propanone

Description:

Inhibitor of Na^+-glucose cotransporters (SGLT). Produces renal glycosuria and blocks intestinal glucose absorption. Normalizes insulin sensitivity in diabetic rats.

Physical and Chemical Properties:

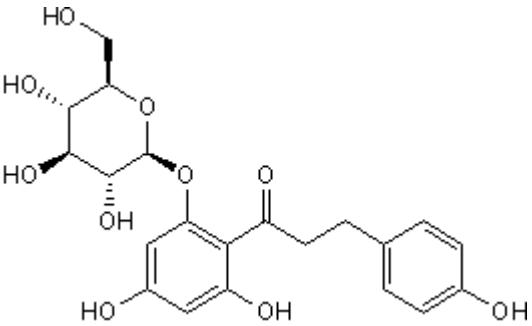
Batch Molecular Formula: $C_{21}H_{24}O_{10}.1½H_2O$

Batch Molecular Weight: 463.43

Physical Appearance: White solid

Minimum Purity: >99%

Batch Molecular Structure:



Storage: Store at -20°C

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

Solubility & Usage Info:

DMSO to 100 mM
ethanol to 100 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Rossetti *et al* (1987) Correction of hyperglycemia with phlorizin normalizes tissue sensitivity to insulin in diabetic rats. J.Clin.Invest. ***79*** 1510. PMID: 3571496.

Wright (2001) Renal Na^+-glucose cotransporters. Am.J.Physiol.Renal.Physiol. ***280*** F10. PMID: 11133510.

Ehrenkranz *et al* (2005) Phlorizin: a review. Diabetes Metab Res Rev. ***21*** 31. PMID: 15624123.

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