

Saponarin Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Saponarin

Catalog No.: CFN90134

Cas No.: 20310-89-8

Purity: > 95%

M.F: C₂₇H₃₀O₁₅

M.W: 594.52

Physical Description: Yellow powder

Synonyms:

4H-1-Benzopyran-4-one,6-b-D-glucopyranosyl-7-(b-D-glucopyranosyloxy)-5-hydroxy-2-(4

-hydroxyphenyl)-;Saponarin(7Cl,8Cl);6-C-Glucosyl-7-O-glucosylapigenin;

7-O-Glucosylisovitexin; Isovitexin 7-glucoside; Isovitexin 7-b-D-glucopyranoside;

Isovitexin 7-b-D-glucoside; Petrocomoside.

[Intended Use]

- 1. Reference standards;
- 2. Pharmacological research;
- 3. Synthetic precursor compounds;
- 4. Intermediates & Fine Chemicals;
- 5. Others.

[Source]

The seeds of Vaccaria segetalis.

[Biological Activity or Inhibitors]

Saponarin has antioxidant activity, is characterized as α-glucosidase inhibitor present in

Tinospora cordifolia, it also has hypoglycemic activity.[1]

Saponarin has protective effect against cocaine-induced oxidative stress and

hepatotoxicity, it also shows in vitro and in vivo hepatoprotective and antioxidant activity

against CCI4-induced liver damage.[2,3]

Saponarin exerts anti-inflammatory effects in LPS-induced RAW 264.7 macrophages via

inhibition of NF-kB, ERK and p38 signaling, thus, it may be a promising natural

anti-inflammatory agent. [4]

Saponarin exerts slight antihypertensive activity in non-diabetic spontaneously

hypertensive rats (SHR), however, such effect is not observed in streptozotocin-induced

diabetic SHR (SHR-D), indicates that diabetes and hypertension in combination are more

difficult to be modulated by saponarin.^[5]

[Solvent]

Pyridine, Methanol, Ethanol, etc.

[HPLC Method]^[6]

Mobile phase: Acetonitrile-1% Acetic acid H2O, gradient elution;

Flow rate: 0.8 ml/min;

Column temperature: Room Temperature;

The wave length of determination: 350 nm.

[Storage]

2-8°C, Protected from air and light, refrigerate or freeze.

[References]

- [1] Sengupta S, Mukherjee A, Goswami R, et al. J. Enzym. Inhib. Med. Ch., 2009, 24(3): 684-90.
- [2] Vitcheva V, Simeonova R, Krasteva I, et al. *Redox Report Communications in Free Radical Research*, 2011, 16(2):56-61.
- [3] Simeonova R, Kondeva-Burdina M, Vitcheva V, et al. Phytomed. Int. J.Phytother. Phytopharmacol., 2014, 21(2):148-54.
- [4] Seo K H, Mi J P, Ra J E, et al. Electronic Supplementary Material (ESI) for Food & Function.2014, 5(11).
- [5] Simeonova R, Vitcheva V, Krasteva I, et al. Phytomedicine, 2016, 23(5):483-90.
- [6] Wu Q X, Chen J, Shi Y P. J. Anal. Chem., 2010, 65(3):298-304.

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