

Stevioside Datasheet

5th Edition (Revised in January, 2017)

[Product Information]

Name: Stevioside

Catalog No.: CFN99548

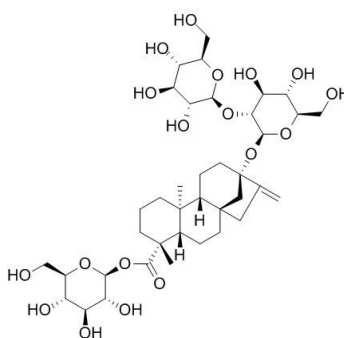
Cas No.: 57817-89-7

Purity: >=98%

M.F: C₃₈H₆₀O₁₈

M.W: 374.34

Physical Description: Powder



Synonyms: (2S,3R,4S,5S,6R)-3,4,5-Trihydroxy-6-(hydroxymethyl)tetrahydro-2H-pyran-2-yl(1R,4S,5R,9S,10R,13S)-13-[[[(2S,3R,4S,5S,6R)-4,5-dihydroxy-6-(hydroxymethyl)-3-[[[(2S,3R,4S,5S,6R)-3,4,5-trihydroxy-6-(hydroxymethyl)tetrahydro-2H-pyran-2-yl]oxy}tetrahydro-2H-pyran-2-yl]oxy}-5,9-dimethyl-14-methylenetetracyclo[11.2.1.0~1,10~.0~4,9~]hexadecane-5-carboxylate.

[Intended Use]

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

[Source]

The leaves of *Stevia rebaudiana*.

[Biological Activity or Inhibitors]

Stevioside can reduce postprandial blood glucose levels in type 2 diabetic patients, indicating beneficial effects on the glucose metabolism, it may be advantageous in the treatment of type 2 diabetes.^[1]

Stevioside and steviol stimulate insulin secretion via a direct action on beta cells, it may have a potential role as antihyperglycemic agents in the treatment of type 2 diabetes mellitus.^[2]

Stevioside enjoys a dual positive effect by acting as an antihyperglycemic and a blood pressure-lowering substance; effects that may have therapeutic potential in the treatment of type 2 diabetes and the metabolic syndrome. ^[3]

Stevioside is a sweet-tasting glycoside, mainly used as a substitute for non-alcoholic sweetener.^[4]

Stevioside shows strong inhibitory activity against 12-O-tetradecanoylphorbol-13-acetate (TPA)-induced inflammation in mice.^[5]

[Solvent]

Pyridine, Methanol, Ethanol, etc.

[HPLC Method]^[6]

Mobile phase: Acetonitrile- Sodium-phosphate buffer (10 mmol/L, pH2.6)=32:68 ;

Flow rate: 1.0 ml/min;

Column temperature: 30 °C;

The wave length of determination: 210 nm.

[Storage]

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

[References]

- [1] Gregersen S, Jeppesen P B, Holst J J, *et al. Metabolism.*, 2004, 53(1):73-6.
- [2] Jeppesen P B, Gregersen S, Poulsen C R, *et al. Metabolism.*, 2000, 49(2):208-14.
- [3] Jeppesen P B, Gregersen S, Rolfsen S E, *et al. Metabolism.*, 2003, 52(3):372-8.
- [4] Chan P, Xu D Y, Liu J C, *et al. Life Sci.*, 1998, 63(19):1679-84.
- [5] Yasukawa K, Kitanaka S, Seo S. *Biol. Pharm. Bull.*, 2002, 25(11):1488-90.
- [6] Arandagonzález I, Yolanda B. Moguel-Ordóñez, Betancurancon D. *Am. J. Anal. Chem.*, 2015, 06(11):878-85.

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