**Natural Products** 

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# **Polygalacic acid Datasheet**

4<sup>th</sup> Edition (Revised in July, 2016)

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#### [ Product Information ]

Name: Polygalacic acid Catalog No.: CFN99108 Cas No.: 22338-71-2 Purity: > 98%

**M.F:** C<sub>30</sub>H<sub>48</sub>O<sub>6</sub>

**M.W:** 504.71

Physical Description: Powder

**Synonyms:**(4aR,5R,6aR,6aS,6bR,9R,10R,11S,12aR,14bR)-5,10,11-trihydroxy-9-(hydrox ymethyl)-2,2,6a,6b,9,12a-hexamethyl-1,3,4,5,6,6a,7,8,8a,10,11,12,13,14b-tetradecahydr opicene-4a-carboxylic acid.

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### [ Intended Use ]

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

#### [Source]

The root of Polygala tenuifolia Willd.

#### [Biological Activity or Inhibitors]

Polygalacic acid(PA) significantly improves cholinergic system reactivity, as indicated by decreased acetylcholinesterase (AChE) activity, increases choline acetyltransferase (ChAT) activity, and elevates levels of acetylcholine (ACh) in the hippocampus and frontal cortex, PA also significantly ameliorates neuroinflammation and oxidative stress in mice; suggest that PA might exert a significant neuroprotective effect on cognitive impairment, driven in part by the modulation of cholinergic activity and neuroinflammation.<sup>[1]</sup> Polygalacic acid shows significant postingestive effects on Spodoptera littoralis larvae.<sup>[2]</sup>

### [ Solvent ]

Pyridine, DMSO, Methanol, etc.

#### [ HPLC Method ]<sup>[3]</sup>

Mobile phase: Acetonitrile- 0.2% Phosphoric acid H2O=40:60; Flow rate: 1.0 ml/min; Column temperature: 30 ℃; The wave length of determination: 210 nm.

### [Storage]

 $2\text{-}8\,^\circ\!\!\mathrm{C},$  Protected from air and light, refrigerate or freeze.

#### [References]

[1] Guo C, Shen J, Meng Z, et al. Phytomed. Int. J. Phytother. Phytopharmacol., 2016, 23(2):149-55.

[2] Hernández-Carlos B, González-Coloma A, Ángel Ulises Orozco-Valencia, *et al. Phytochemistry*, 2011, 72(8):743-51.

[3] Liu S M, Fang Z Y, Zhou H X, *et al. Chinese Journal of Veterinary Drug, 2009, 43(9): 8-10.* 

## [ Contact ]

#### Address:

S5-3 Building, No. 111, Dongfeng Rd., Wuhan Economic and Technological Development Zone, Wuhan, Hubei 430056, China Email: info@chemfaces.com Tel: +86-27-84237783 Fax: +86-27-84254680 Web: www.chemfaces.com Tech Support: service@chemfaces.com