

Glycyrrhizic acid Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Glycyrrhizic acid

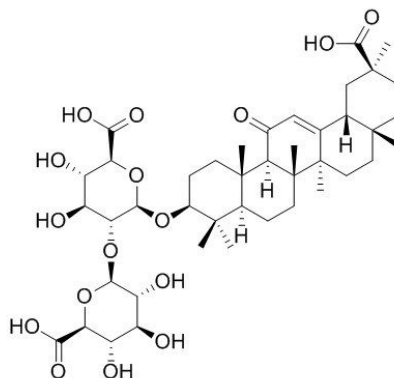
Catalog No.: CFN99151

Cas No.: 1405-86-3

Purity: > 98%

M.F: C₄₂H₆₂O₁₆

M.W: 822.92



Physical Description: Powder

Synonyms: (2S,3S,4S,5R,6R)-6-[[[(2S,3R,4S,5S,6S)-2-[[[(3S,4aR,6aR,6bS,8aS,11S,12aR,14aR,14bS)-11-carboxy-4,4,6a,6b,8a,11,14b-heptamethyl-14-oxo-2,3,4a,5,6,7,8,9,10,12,12a,14a-dodecahydro-1H-picen-3-yl]oxy]-6-carboxy-4,5-dihydroxy-3-oxanyl]oxy]-3,4,5-trihydroxy-2-oxan.

[Intended Use]

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

[Source]

The root of *Glycyrrhiza glabra* L.

[Biological Activity or Inhibitors]

Glycyrrhizic acid has immunoregulatory function, it (up to 100 mg/ml) can inhibit interleukin-6 and elevate interleukin-10 production in lipopolysaccharide-activated macrophages, and significantly inhibit proliferation of spleen lymphocytes; rectally administered glycyrrhizic acid has significant protective effects against TNBS-induced colitis in rats.^[1]

Glycyrrhizic acid and 18 β -glycyrrhetic acid may provide an anti-inflammatory effect by attenuating the generation of excessive NO, PGE(2), and ROS and by suppressing the expression of pro-inflammatory genes through the inhibition of NF- κ B and PI3K activity, might serve as potential agents for the treatment of inflammatory-mediated diseases.^[2]

Glycyrrhizic acid offers radioprotection by scavenging free radicals.^[3]

Glycyrrhizic acid is the antiviral component of *Glycyrrhiza uralensis* Fisch against coxsackievirus A16 and enterovirus 71 of hand foot and mouth disease with distinct mechanisms.^[4]

[Solvent]

Pyridine, Methanol, Ethanol, Hot water, etc.

[HPLC Method]^[5]

Mobile phase: Methanol -Acetic acid=62:38;

Flow rate: 1.0 ml/min;

Column temperature: Room temperature;

The wave length of determination: 250 nm.

[Storage]

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

[References]

- [1] Liu Y, Xiang J, Liu M, *et al. Lat. Am. J. Pharm.* , 2011, 63(3):439-46.
- [2] Wang CY, Kao TC, Lo WH, *et al. Journal of Agricultural & Food Chemistry*, 2011, 59(14):7726-33.
- [3] Wang D, Pang Y X, Wang W Q, *et al. Biochem. Syst. Ecol.*, 2013, 50(7):93-100.
- [4] Wang J, Chen X, Wei W, *et al. J. Ethnopharmacol.*, 2013, 147(1):114-21.
- [5] Miao H, Qian Y, Xue L, *et al. Primary Journal of Chinese Materia Medica*, 2000, (5):17-8.

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