

PRODUCT INFORMATION



18 α -Glycyrrhetic Acid

Item No. 11844

CAS Registry No.: 1449-05-4

Formal Name: (3 β ,18 α ,20 β)-3-hydroxy-11-oxo-olean-12-en-29-oic acid

Synonyms: β -Glycyrrhetic Acid, NSC 35350, STX 353

MF: C₃₀H₄₆O₄

FW: 470.7

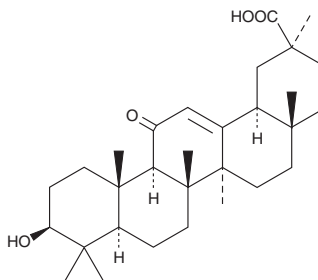
Purity: $\geq 98\%$

UV/Vis.: λ_{max} : 248 nm

Supplied as: A crystalline solid

Storage: -20°C

Stability: As supplied, 2 years from the QC date provided on the Certificate of Analysis, when stored properly



Laboratory Procedures

18 α -Glycyrrhetic acid is supplied as a crystalline solid. A stock solution may be made by dissolving the 18 α -glycyrrhetic acid in the solvent of choice. 18 α -Glycyrrhetic acid is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of 18 α -glycyrrhetic acid in ethanol and DMF is approximately 30 mg/ml and approximately 20 mg/ml in DMSO.

18 α -Glycyrrhetic acid is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, 18 α -glycyrrhetic acid should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. 18 α -glycyrrhetic acid has a solubility of approximately 0.02 mg/ml in a 1:40 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

18 α -Glycyrrhetic acid is one of two epimers produced by removal of glucose from the triterpenoid saponin glycyrrhizic acid (Item No. 11847), the other being 18 β -glycyrrhetic acid (Item No. 11845). 18 α -Glycyrrhetic acid inhibits intercellular communication through gap junctions.^{1,2} More specifically, it is used primarily to block gap junctions involving connexin-43 (also known as gap junction α -1 protein).³⁻⁵ 18 α -Glycyrrhetic acid has also been shown to inhibit connexin-26 (gap junction β -2 protein), a tumor suppressor gene expressed in HeLa cells.⁶

References

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- Kamijo, M., Haraguchi, T., Tonogi, M., et al. *Biomed. Res.* **27**(6), 289-295 (2006).
- Munari-Silem, Y., Lebrethon, M. C., Morand, I., et al. *J. Clin. Invest.* **95**(4), 1429-1439 (1995).
- Mensnil, M., Piccoli, C., and Yamasaki, H. *Cancer Res.* **57**(14), 2929-2932 (1997).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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