

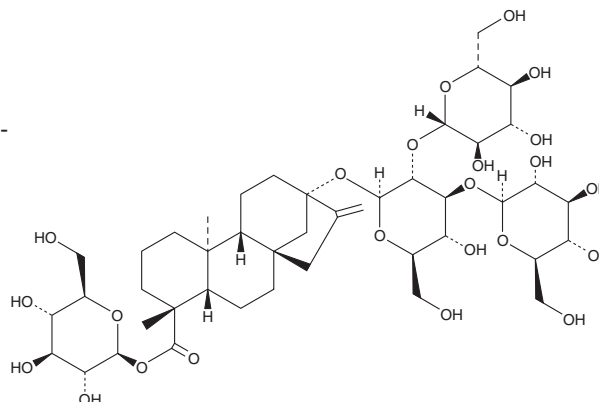
PRODUCT INFORMATION



Rebaudioside A

Item No. 11894

CAS Registry No.: 58543-16-1
Formal Name: (4 α)-13-[[O- β -D-glucopyranosyl-(1 \rightarrow 2)]-O-[β -D-glucopyranosyl-(1 \rightarrow 3)]- β -D-glucopyranosyl]oxy]-kaur-16-en-18-oic acid, β -D-glucopyranosyl ester
Synonyms: Glycoside A₃ (from *S. Rebaudiana*), Reb A, Stevioside A₃
MF: C₄₄H₇₀O₂₃
FW: 967.0
Purity: \geq 98%
Supplied as: A crystalline solid
Storage: -20°C
Stability: \geq 2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Rebaudioside A is supplied as a crystalline solid. A stock solution may be made by dissolving the rebaudioside A in the solvent of choice. Rebaudioside A is soluble in organic solvents such as DMSO and dimethyl formamide, which should be purged with an inert gas. The solubility of rebaudioside A in these solvents is approximately 1 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of rebaudioside A can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of rebaudioside A in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Rebaudioside A is a natural non-caloric sweetener.¹ It is one of the predominant steviol glycosides isolated from *S. rebaudiana* leaves.² It increases glucagon-like peptide 1 (GLP-1) secretion in a 2-dimensional mouse intestine model.³ In a two bottle preference test, mice drink more water containing rebaudioside A than unsweetened water, though saccharin-sweetened water is still preferred.² Rebaudioside A is metabolized by gut microbiota to steviol (Item No. 10011344), a compound whose safety is widely studied.^{4,5} Consumption of rebaudioside A formulations by pre-diabetic patients did not increase fasting or 2 hour plasma glucose levels or insulin levels.⁶

References

1. Upreti, M., Dubois, G., and Prakash, I. *Molecules* **17**(4), 4186-4196 (2012).
2. Sclafani, A., Bahrani, M., Zukerman, S., et al. *Chem. Senses*. **35**(5), 433-443 (2010).
3. van der Wielen, N., ten Klooster, J.P., Muckenschnabi, S., et al. *J. Nutr.* **146**(12), 2429-2435 (2016).
4. Brusick, D.J. *Food Chem. Toxicol.* **46**(Suppl 7), S83-S91 (2008).
5. Roberts, A. and A.G. Renwick. *Food Chem. Toxicol.* **46**(Suppl 7), S31-S39 (2008).
6. Shin, D.H., Lee, J.H., Kang, M.S., et al. *Diabetes Metab. J.* **40**(4), 283-289 (2016).

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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