

# PRODUCT INFORMATION



## Rebaudioside M

Item No. 35239

**CAS Registry No.:** 1220616-44-3  
**Formal Name:** (4 $\alpha$ )-13-[(O- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 2))-O- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 3)]- $\beta$ -D-glucopyranosyl]oxy]-kaur-16-en-18-oic acid, O- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 2))-O- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 3))- $\beta$ -D-glucopyranosyl ester

**Synonyms:** Reb M, Rebaudioside X

**MF:** C<sub>56</sub>H<sub>90</sub>O<sub>33</sub>

**FW:** 1,291.3

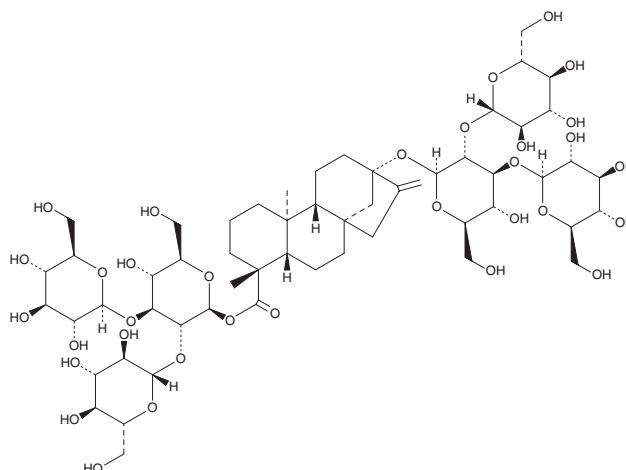
**Purity:**  $\geq$ 95%

**Supplied as:** A solid

**Storage:** -20°C

**Stability:**  $\geq$ 4 years

**Item Origin:** Plant/*Stevia rebaudiana*



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

### Laboratory Procedures

Rebaudioside M is supplied as a solid. A stock solution may be made by dissolving the rebaudioside M in the solvent of choice, which should be purged with an inert gas. Rebaudioside M is soluble in methanol.

### Description

Rebaudioside M is a natural non-caloric sweetener and an agonist of the class 1 sweet taste receptor (TAS1R) heterodimer formed by TAS1R2 and TAS1R3.<sup>1</sup> It is one of the minor steviol glycosides isolated from *S. rebaudiana* leaves.<sup>2</sup> Rebaudioside M increases intracellular calcium levels in HEK293 cells expressing human TAS1R2 and TAS1R3 (EC<sub>50</sub> = 29.54  $\mu$ M) and has a relative sweetness potency 200-350 times that of sucrose.<sup>1,2</sup> Rebaudioside M is metabolized by gut microbiota to steviol, a compound whose safety is widely studied.<sup>3-5</sup>

### References

1. Choi, Y., Mantney, J.A., Park, T.H., et al. Correlation between in vitro binding activity of sweeteners to cloned human sweet taste receptor and sensory evaluation. *Food Sci. Biotechnol.* **30**(5), 675-682 (2021).
2. Prakash, I., Markosyan, A., and Bunders, C. Development of next generation Stevia sweetener: Rebaudioside M. *Foods* **3**(1), 162-175 (2014).
3. Purkayastha, S., Markosyan, A., Prakash, I., et al. Steviol glycosides in purified stevia leaf extract sharing the same metabolic fate. *Regul. Toxicol. Pharmacol.* **77**, 125-133 (2016).
4. Roberts, A. and Renwick, A.G. Comparative toxicokinetics and metabolism of rebaudioside A, stevioside, and steviol in rats. *Food Chem. Toxicol.* **46**(Suppl 7), S31-S39 (2008).

#### 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.

#### WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 08/01/2023

#### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA

**PHONE:** [800] 364-9897  
[734] 971-3335

**FAX:** [734] 971-3640

CUSTSERV@CAYMANCHEM.COM  
[WWW.CAYMANCHEM.COM](http://WWW.CAYMANCHEM.COM)