

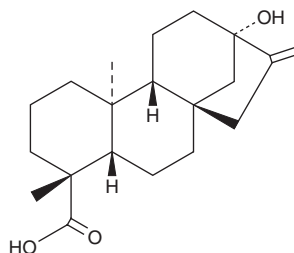
# PRODUCT INFORMATION



## Steviol

Item No. 10011344

**CAS Registry No.:** 471-80-7  
**Formal Name:** (4 $\alpha$ )-13-hydroxy-kaur-16-en-18-oic acid  
**Synonyms:** Hydroxy Dehydrostevic Acid, NSC 226902  
**MF:** C<sub>20</sub>H<sub>30</sub>O<sub>3</sub>  
**FW:** 318.5  
**Purity:**  $\geq$ 98%  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:**  $\geq$ 4 years



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

### Laboratory Procedures

Steviol is supplied as a crystalline solid. A stock solution may be made by dissolving the steviol in the solvent of choice. Steviol is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of steviol in ethanol and DMF is approximately 30 mg/ml and approximately 25 mg/ml in DMSO.

Steviol is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, steviol should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Steviol has a solubility of approximately 0.5 mg/ml in a 1:1 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

Steviol is the aglycon derivative of steviol glycosides, which are natural sweeteners isolated from *S. rebaudiana*. Steviol inhibits human organic anion transporters (hOATs) in uptake assays using murine cells from the S2 segment of proximal tubules. It is selective for hOAT1 and hOAT3 over hOAT2 and hOAT4 (IC<sub>50</sub>s = 11.4, 36.5, 1,000, and 285  $\mu$ M, respectively).<sup>1</sup> Uptake assays in mouse renal cortical slices yield similar results with IC<sub>50</sub> values of 12.8 and 67.6  $\mu$ M for hOAT1 and hOAT3, respectively.<sup>1</sup> Due to the use of steviol glycosides as sweeteners, the safety of steviol is widely studied, including its genotoxicity and toxicokinetics.<sup>2,3</sup>

### References

1. Srimaroeng, C., Jutabha, P., Pritchard, J.B., *et al.* Interactions of stevioside and steviol with renal organic anion transporters in S2 cells and mouse renal cortical slices. *Pharm Res.* **22(6)**, 858-866 (2005).
2. Brusick, D.J. A critical review of the genetic toxicity of steviol and steviol glycosides. *Food Chem. Toxicol.* **46(Suppl 7)**, S83-S91 (2008).
3. 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.

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