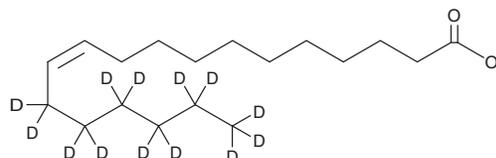


# PRODUCT INFORMATION



## *cis*-Vaccenic Acid-d<sub>13</sub> Item No. 27716

**Formal Name:** (Z)-octadec-11-enoic-13,13,14,14,15,15,16,16,17,17,18,18,18-d<sub>13</sub> acid  
**Synonyms:** 18:1 *cis*-11-d<sub>13</sub>, *cis*-11-Octadecenoic Acid-d<sub>13</sub>, FA 18:1-d<sub>13</sub>  
**MF:** C<sub>18</sub>H<sub>21</sub>D<sub>13</sub>O<sub>2</sub>  
**FW:** 295.5  
**Chemical Purity:** ≥98% (*cis*-Vaccenic Acid)  
**Deuterium Incorporation:** ≥99% deuterated forms (d<sub>1</sub>-d<sub>13</sub>); ≤1% d<sub>0</sub>  
**Supplied as:** A solution in ethanol  
**Storage:** -20°C  
**Stability:** ≥4 years



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

### Laboratory Procedures

*cis*-Vaccenic acid-d<sub>13</sub> is intended for use as an internal standard for the quantification of *cis*-vaccenic acid (Item No. 20023) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

*cis*-Vaccenic acid-d<sub>13</sub> is supplied as a solution in ethanol. To change the solvent, simply evaporate the ethanol under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as DMSO and dimethyl formamide purged with an inert gas can be used. The solubility of *cis*-vaccenic acid-d<sub>13</sub> in these solvents is approximately 30 mg/ml.

### Description

*cis*-Vaccenic acid is an ω-7 fatty acid that has been found in mango pulp.<sup>1</sup> It induces differentiation of, and γ-globin synthesis in, K562 and JK-1 cells, as well as isolated sickle cell transgenic mouse bone marrow erythroid progenitor cells (TMbmEPSCs).<sup>2</sup>

### References

1. Shibahara, A., Yamamoto, K., Nakayama, T., *et al.* *cis*-Vaccenic acid in mango pulp lipids. *Lipids* **21**(6), 388-394 (1986).
2. Aimola, I.A., Inuwa, H.M., Nok, A.J., *et al.* *Cis*-vaccenic acid induces differentiation and up-regulates gamma globin synthesis in K562, JK1 and transgenic mice erythroid progenitor stem cells. *Eur. J. Pharmacol.* **776**, 9-18 (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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#### 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