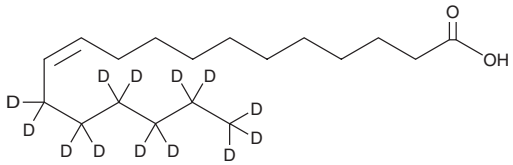
PRODUCT INFORMATION

cis-Vaccenic Acid-d_{13}

Item No. 27716

Formal Name: (Z)-octadec-11-enoic-13,13,14,14,15,15,16,16,17,17,18,18,18-d_{13} acid
Synonyms: 18:1 *cis*-11-d_{13}, *cis*-11-Octadecenoic Acid-d_{13}, FA 18:1-d_{13}
MF: $C_{18}H_{21}D_{13}O_2$
FW: 295.5
Chemical Purity: ≥98% (*cis*-Vaccenic Acid)
Deuterium Incorporation: ≥99% deuterated forms (d_1-d_{13}); ≤1% d_0
Supplied as: A solution in ethanol
Storage: -20°C
Stability: ≥2 years



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

Laboratory Procedures

cis-Vaccenic acid-d_{13} 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_{13} 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_{13} 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.[1] 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).[2]

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).

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