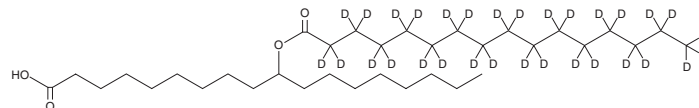


# PRODUCT INFORMATION



## 10-PAHSA-d<sub>31</sub> Item No. 22658

**CAS Registry No.:** 2748489-85-0  
**Formal Name:** 10-[(1-oxohexadecyl)oxy-d<sub>31</sub>]-octadecanoic acid  
**MF:** C<sub>34</sub>H<sub>35</sub>D<sub>31</sub>O<sub>4</sub>  
**FW:** 570.1  
**Chemical Purity:** ≥95% (10-PAHSA)  
**Deuterium Incorporation:** ≥99% deuterated forms (d<sub>1</sub>-d<sub>31</sub>); ≤1% d<sub>0</sub>  
**Supplied as:** A solution in methyl acetate  
**Storage:** -20°C  
**Stability:** ≥2 years



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

### Laboratory Procedures

10-PAHSA-d<sub>31</sub> contains 31 deuterium atoms and is intended for use as an internal standard for the quantification of 10-PAHSA (Item No. 19973) 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).

10-PAHSA-d<sub>31</sub> is supplied as a solution in methyl acetate. To change the solvent, simply evaporate the methyl acetate under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as ethanol, DMSO, and dimethyl formamide (DMF) purged with an inert gas can be used. The solubility of 10-PAHSA-d<sub>31</sub> in ethanol and DMF is approximately 20 mg/ml and approximately 15 mg/ml in DMSO.

### Description

10-PAHSA is a newly identified endogenous lipid that belongs to a collection of branched fatty acid esters of hydroxy fatty acids (FAHFAs). 10-PAHSA is a FAHFA in which palmitic acid (Item No. 10006627) is esterified to 10-hydroxy stearic acid. Among the FAHFA family members, PAHSAs are the most abundant in the adipose tissue of glucose tolerant AG4OX mice, which overexpress the Glut4 glucose transporter specifically in adipose tissue.<sup>1</sup> As other FAHFAs improve glucose tolerance, stimulate insulin secretion, and have anti-inflammatory effects, 10-PAHSA may be a bioactive lipid with roles in metabolic syndrome and inflammation.

### Reference

1. Yore, M.M., Syed, I., Moraes-Vieira, P.M., *et al.* Discovery of a class of endogenous mammalian lipids with anti-diabetic and anti-inflammatory effects. *Cell* **159**(2), 318-332 (2014).

#### 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

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