

## Produktinformation



Forschungsprodukte & Biochemikalien
Zellkultur & Verbrauchsmaterial
Diagnostik & molekulare Diagnostik
Laborgeräte & Service

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## SZABO-SCANDIC HandelsgmbH

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# Product Information

## 12-OAHSA-d<sub>17</sub>

Item No. 17195

Formal Name:	11-carboxy-1-hexylundecyl ester-9Z-octa decenoic-11,11',12,12',13,13',14,14',15, 15',16,16',17,17',18,18,18-d <sub>17</sub> acid
MF:	$C_{36}H_{51}D_{17}O_4$
FW:	582.0 p
<b>Chemical Purity:</b>	≥95% 12-OAHSA HO
Deuterium	
Incorporation:	$\geq$ 99% deuterated forms (d <sub>1</sub> -d <sub>17</sub> ); $\leq$ 1% d <sub>0</sub>
Stability:	≥1 year at -20°C
Supplied as:	A solution in methyl acetate

#### Laboratory Procedures

12-OAHSA-d<sub>17</sub> contains 17 deuterium atoms at the 11, 11', 12, 12', 13, 13', 14, 14', 15, 15', 16, 16', 17, 17', 18, 18, and 18 positions. It is intended for use as an internal standard for the quantification of 12-OAHSA (Item No. 17108) by GC- or LC-mass spectrometry (MS). For long term storage, we suggest that 12-OAHSA-d<sub>17</sub> be stored as supplied at -20°C. It should be stable for at least one year.

12-OAHSA-d<sub>17</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 12-OAHSA-d<sub>17</sub> in ethanol and DMF is approximately 20 mg/ml and approximately 15 mg/ml in DMSO.

12-OAHSA-d<sub>17</sub> is used as an internal standard for the quantification of 12-OAHSA by stable isotope dilution 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). NOTE: Please be advised that this product will elute 3-5 minutes sooner than its corresponding non-deuterated standard when using the analytical method described by Yore, M.M et al..<sup>1</sup>

Branched fatty acid esters of hydroxy fatty acids (FAHFAs) are newly identified endogenous lipids regulated by fasting and high-fat feeding and associated with insulin sensitivity.<sup>1</sup> Structurally, these esters are comprised of a C-16 or C-18 fatty acid (e.g., palmitoleic, palmitic, oleic, or stearic acid) linked to either a C-16 or C-18 hydroxy substituent. 12-OAHSA is a FAHFA in which oleic acid is esterified at the 12th carbon of hydroxy stearic acid. Among the FAHFA family members, OAHSAs are the most abundantly expressed in the serum of glucose tolerant AG4OX mice, which overexpress the Glut4 glucose transporter specifically in adipose tissue.<sup>1</sup>

#### Reference

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

#### **Related Products**

For a list of related products please visit: www.caymanchem.com/catalog/17195

#### WARNING: This product is for laboratory research only: not for administration to humans. Not for human or veterinary DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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