

# Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten! See the following pages for more information!



# Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

# Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

linkedin.com/company/szaboscandic in



# **Product Information**



# ω-3 Arachidonic Acid-d<sub>o</sub>

Item No. 390011

Formal Name: 8Z,11Z,14Z,17Z-eicosatetraenoic-

8,9,11,12,14,15,17,18-d<sub>8</sub> acid

Synonym:  $\omega$ -3 AA-d<sub>8</sub> MF:  $C_{20}H_{24}D_8O_2$ FW:

Deuterium

**Chemical Purity:** 

 $\geq$ 99% deuterated forms  $(d_1-d_8)$ ;  $\leq$ 1%  $d_0$ Incorporation:

Stability: ≥1 year at -20°C

Supplied as: A solution in methyl acetate

### **Laboratory Procedures**

ω-3 Arachidonic acid-d<sub>8</sub> contains eight deuterium atoms at the 8, 9, 11, 12, 14, 15, 17, and 18 positions. It is intended for use as an internal standard for the quantification of ω-3 arachidonic acid by GC- or LC-mass spectrometry (MS). For long term storage, we suggest that ω-3 arachidonic acid-d<sub>8</sub> be stored as supplied at -20°C. It will be stable for at least one

ω-3 Arachidonic acid-d<sub>s</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. ω-3 Arachidonic acid-d<sub>s</sub> is miscible in ethanol, but solvents such as DMSO and dimethyl formamide purged with an inert gas can also be used. The solubility of ω-3 arachidonic acid-d<sub>8</sub> in these solvents is approximately 100 mg/ml.

 $\omega$ -3 Arachidonic acid-d<sub>s</sub> is used as an internal standard for the quantification of  $\omega$ -3 arachidonic acid by stable isotope dilution MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the weight indicated on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard 60-3 arachidonic acid by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

ω-3 Arachidonic acid is a rare polyunsaturated fatty acid found in trace amounts in dietary sources. ω-3 fatty acids are now known to be essential for infant growth and development and to protect against heart disease, thrombosis, hypertension, and inflammatory and autoimmune disorders. In human platelet membranes, ω-3 arachidonic acid inhibits arachidonoyl-CoA synthetase with a K, value of 14 µM. It also inhibits arachidonoyl-CoA synthetase in calf brain extracts with an IC<sub>50</sub> value of about 5  $\mu$ M.<sup>2</sup>

### References

- 1. Simopoulos, A.P. Omega-3 fatty acids in health and disease and in growth and development. Am. J. Clin. Nutr. 54, 438-463 (1991).
- 2. Neufeld, E.J., Sprecher, H., Evans, R.W., et al. Fatty acid structural requirements for activity of arachidonoyl-CoA synthetase. J. Lipid Res. 25, 288-293 (1984).

### Related Products

For a list of related products please visit: www.caymanchem.com/catalog/390011

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

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.

### WARRANTY AND LIMITATION OF REMEDY

Cayman Chemical Company makes **no warranty or guarantee** of any kind, whether written or oral, expressed or implied, including without limitation, any warranty of fitness for a particular purpose, suitability and merchantability, which extends beyond the description of the chemicals hereof. Cayman **warrants only** to the original customer that the material will <u>meet our specifications</u>

purpose, statabunity and metabanaonity, which extents beyond me description of the chemicals network. Cayman warrants only to the original customer that me material win meet our specimentors at the time of delivery.

Cayman will carry out its delivery obligations with due care and skill. Thus, in no event will Cayman have any obligation or liability, whether in tort (including negligence) or in contract, for any direct, incidental or consequential damages, even if Cayman is informed about their possible existence.

This limitation of liability does not apply in the case of intentional acts or negligence of Cayman, its directors or its employees.

Buyer's exclusive remedy and Cayman's sole liability hereunder shall be limited to a refund of the purchase price, or at Cayman's option, the replacement, at no cost to Buyer, of all material that does not meet our specifications.

Said refund or replacement is conditioned on Buyer giving written notice to Cayman within thirty (30) days after arrival of the material at its destination. Failure of Buyer to give said notice within

Copyright Cayman Chemical Company, 10/16/2013

thirty (30) days shall constitute a waiver by Buyer of all claims hereunder with respect to said material.

For further details, please refer to our Warranty and Limitation of Remedy located on our website and in our catalog.

# Cayman Chemical

### **Mailing address**

1180 E. Ellsworth Road Ann Arbor, MI 48108 USA

(800) 364-9897 (734) 971-3335

(734) 971-3640

custserv@caymanchem.com

www.caymanchem.com