

# PRODUCT INFORMATION



## Arachidonic Acid-d<sub>11</sub> ethyl ester

Item No. 37970

**Formal Name:** 5Z,8Z,11Z,14Z-eicosatetraenoic-16,16,17,17,18,18,19,19,20,20,20-d<sub>11</sub> acid, ethyl ester

**Synonyms:** C20:4 (cis-5,8,11,14)-d<sub>11</sub> ethyl ester, Ethyl Arachidonate-d<sub>11</sub>, Ethyl (cis-5,8,11,14)-eicosatetraenoate-d<sub>11</sub>, SFE 22:4-d<sub>11</sub>

**MF:** C<sub>22</sub>H<sub>25</sub>D<sub>11</sub>O<sub>2</sub>

**FW:** 343.6

**Chemical Purity:** ≥95% (Arachidonic Acid ethyl ester)

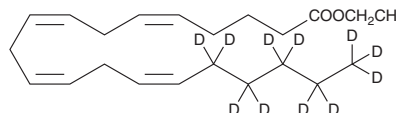
**Deuterium**

**Incorporation:** ≥99% deuterated forms (d<sub>1</sub>-d<sub>11</sub>); ≤1% d<sub>0</sub>

**Supplied as:** A 1 mg/ml 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

Arachidonic Acid-d<sub>11</sub> ethyl ester is intended for use as an internal standard for the quantification of arachidonic acid ethyl ester (Item No. 10008200) 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).

Arachidonic acid ethyl ester 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 arachidonic acid ethyl ester in these solvents is approximately 100 mg/ml.

### Description

Arachidonic acid ethyl ester is an esterified form of arachidonic acid (Item Nos. 90010 | 90010.1 | 10006607). It is commonly used as a source of exogenous arachidonic acid *in vivo*.<sup>1</sup> Arachidonic acid ethyl ester has been found in the meconium of newborns suspected of fetal alcohol exposure.<sup>2</sup>

### References

1. Naoe, S., Tsugawa, H., Takahashi, M., *et al.* Characterization of lipid profiles after dietary intake of polyunsaturated fatty acids using integrated untargeted and targeted lipidomics. *Metabolites* **9**(10), 241 (2019).
2. Moore, C., Jones, J., Lewis, D., *et al.* Prevalence of fatty acid ethyl esters in meconium specimens. *Clin. Chem.* **49**(1), 133-136 (2003).

#### 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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