# PRODUCT INFORMATION



# Elaidamide

Item No. 21079

CAS Registry No.: 4303-70-2

Formal Name: 9E-octadecenamide

Synonyms: Elaidic Acid amide, (E)-9,10-Octadecenamide

MF: C<sub>18</sub>H<sub>35</sub>NO FW: 281.5 **Purity:** ≥95%

Supplied as: A crystalline solid

Storage: -20°C Stability: ≥4 years

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

### **Laboratory Procedures**

Elaidamide is supplied as a crystalline solid. A stock solution may be made by dissolving the elaidamide in the solvent of choice, which should be purged with an inert gas. Elaidamide is soluble in the organic solvent dimethyl formamide (DMF) at a concentration of approximately 2 mg/ml.

Elaidamide is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, elaidamide should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Elaidamide has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

#### Description

Elaidamide is a fatty acid amide that has been found in the cerebrospinal fluid of sleep-deprived cats. 1 It inhibits rat microsomal epoxide hydrolase (mEH;  $K_i$  = 70 nM).<sup>2</sup> Elaidamide also inhibits porcine pancreatic and human synovial phospholipase A<sub>2</sub> (PLA<sub>2</sub>).<sup>3</sup> In vivo, elaidamide (10 mg/animal) induces physiological sleep in rats.1

## References

- 1. Cravatt, B.F., Prospero-Garcia, O., Siuzdak, G., et al. Chemical characterization of a family of brain lipids that induce sleep. Science 268(5216), 1506-1509 (1995).
- 2. Morisseau, C., Newman, J.W., Dowdy, D.L., et al. Inhibition of microsomal epoxide hydrolases by ureas, amides, and amines. Chem. Res. Toxicol. 14(4), 409-415 (2001).
- Jain, M.K., Ghomashchi, F., Yu, B.Z., et al. Fatty acid amides: Scooting mode-based discovery of tight-binding competitive inhibitors of secreted phospholipases A2. J. Med. Chem. 35(19), 3584-3586 (1992).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

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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