

## 9(10)-Nitrooleic Acid

**Catalog number:** L-0112

**Molecular Formula:** C<sub>18</sub>H<sub>33</sub>NO<sub>4</sub>

**MW:** 327.24

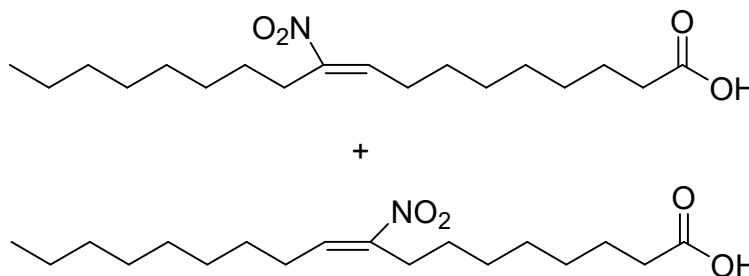
**CAS:** 875685-44-4 (875685-46-4)

**Solubility:** Methanol, ethanol

**Storage and Handling:** Store dry at -20 °C. Stock solutions should be stored frozen (-20 °C or below).

**Background:** Nitrooleic acid (OA-NO<sub>2</sub>) is formed by nitration of oleic acid from excessive nitric oxide during inflammation (nitrative stress). OA-NO<sub>2</sub> is a potent signaling molecule which can activate numerous receptors including TRPA1 cation channels and PPAR. 9(10)-Nitrooleic acid is a mixture of the 9-nitro and 10-nitro isomers which are formed in equal amounts *in vivo*.

**References:** 1) P.S. Baker *et al* "Fatty Acid Transduction of Nitric Oxide signaling" *Journal of Biological Chemistry*, 2005, 280, 42464-42475;  
2) F.J. Schopfer *et al* "Covalent Peroxisome Proliferator-Activated Receptor Adduction By Nitro-Fatty Acid" *Journal of Biological Chemistry*, 2010, 285, 12321-12333.



**Hazardous Properties and Cautions:** The toxicological and pharmacological properties of this compound are not fully known. For further information see the MSDS on request. This product is manufactured and shipped only in small quantities, intended for research and development in a laboratory utilizing prudent procedures for handling chemicals of unknown toxicity, under the supervision of persons technically qualified to evaluate potential risks and authorized to enforce appropriate health and safety measures. As with all research chemicals, precautions should be taken to avoid unnecessary exposures or risks.

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Technical Data Sheet, Rev 2, 5/23/2024 – **For research use only.** Not intended for diagnostic or therapeutic use.

