

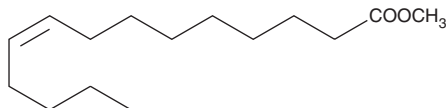
# PRODUCT INFORMATION



## Myristoleic Acid methyl ester

Item No. 10008581

**CAS Registry No.:** 56219-06-8  
**Formal Name:** 9-tetradecenoic acid, methyl ester  
**Synonyms:** Methyl myristoleate, *cis*-9-Tetradecenoate methyl ester, SFE 15:1  
**MF:** C<sub>15</sub>H<sub>28</sub>O<sub>2</sub>  
**FW:** 240.4  
**Purity:** ≥98%  
**Supplied as:** A 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

Myristoleic acid methyl 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 myristoleic acid methyl ester in these solvents is approximately 3 and 2.5 mg/ml, respectively.

Myristoleic acid methyl ester is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the ethanolic solution of myristoleic acid methyl ester should be diluted with the aqueous buffer of choice. The solubility of myristoleic acid methyl ester in PBS (pH 7.2) is approximately 2 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

Myristoleic acid is a cytotoxic component from the fruit extract of *S. repens*.<sup>1</sup> It induces apoptosis and necrosis in human prostate cancer LNCaP cells at a rate of 8.8% and 8.1%, respectively.<sup>1</sup> Furthermore, myristoleic acid found in the by-products for making cheese is one of three fatty acids that are most active at inhibiting *Candida albicans* germination.<sup>2</sup> It has a minimal inhibitory concentration (MIC) of 9 μM *in vivo*.<sup>3</sup> Myristoleic acid methyl ester is a more hydrophobic form of the free acid.

### References

1. Iguchi, K., Okumura, N., Usui, S., *et al.* Myristoleic acid, a cytotoxic component in the extract from *Serenoa repens*, induces apoptosis and necrosis in human prostatic LNCaP cells. *Prostate* **47**(1), 59-65 (2001).
2. Clément, M., Tremblay, J., Lange, M., *et al.* Whey-derived free fatty acids suppress the germination of *Candida albicans* *in vitro*. *FEMS Yeast Res.* **7**(2), 276-285 (2007).
3. Umehara, T., Sudoh, M., Yasui, F., *et al.* Serine palmitoyltransferase inhibitor suppresses HCV replication in a mouse model. *Biochem. Biophys. Res. Commun.* **346**(1), 67-73 (2006).

#### 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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