

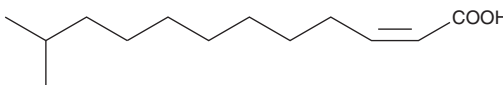
PRODUCT INFORMATION



cis- Δ^2 -11-methyl-Dodecenoic Acid

Item No. 10008123

CAS Registry No.: 677354-23-3
Formal Name: 11-methyl-2Z-dodecenoic acid
Synonym: FA 13:1
MF: $C_{13}H_{24}O_2$
FW: 212.3
Purity: $\geq 98\%$
Supplied as: A solution in methyl acetate
Storage: -20°C
Stability: ≥ 2 years



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

Laboratory Procedures

cis- Δ^2 -11-methyl-Dodecenoic acid 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. Solvents such as ethanol, DMSO, and dimethyl formamide purged with an inert gas can be used. The solubility of *cis*- Δ^2 -11-methyl-dodecenoic acid in these solvents is approximately 30 mg/ml.

cis- Δ^2 -11-methyl-Dodecenoic acid is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the methyl acetate solution of *cis*- Δ^2 -11-methyl-dodecenoic acid should be diluted with the aqueous buffer of choice. *cis*- Δ^2 -11-methyl-Dodecenoic acid has a solubility of approximately 0.5 mg/ml in a 1:8 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Both prokaryotes and eukaryotes depend on small signalling molecules for cell-cell communication. *cis*- Δ^2 -11-methyl-Dodecenoic acid is a diffusible signal factor (DSF) in extracellular microbial and fungal communication systems.¹ In a DSF bioassay, the minimum concentration of *cis*- Δ^2 -11-methyl-dodecenoic acid required for induction of a DSF biosensor was about 0.5 μM , which is 200-fold lower than that of the conformational isomer (*trans*- Δ^2 -11-methyl-dodecenoic acid) and 20,000-fold lower than that of the corresponding saturated fatty acid (11-methyl-dodecanoic acid).

Reference

1. Wang, L.-H., He, Y., Gao, Y., *et al.* A bacterial cell-cell communication signal with cross-kingdom structural analogues. *Mol. Microbiol.* **51**(3), 903-912 (2004).

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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