

PRODUCT INFORMATION



5(Z)-Dodecenoic Acid

Item No. 35910

CAS Registry No.: 2430-94-6

Synonyms: C12:1 *n*-7, C12:1(5Z),
cis-5-Dodecenoic Acid, FA 12:1

MF: C₁₂H₂₂O₂

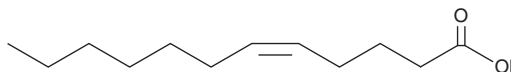
FW: 198.3

Purity: ≥98%

Supplied as: A 10 mg/ml solution in ethanol

Storage: -20°C

Stability: ≥4 years



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

Laboratory Procedures

5(Z)-Dodecenoic acid 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. 5(Z)-Dodecenoic acid is slightly soluble in methanol and chloroform.

Description

5(Z)-Dodecenoic acid is a medium-chain unsaturated fatty acid. It is a precursor in the biosynthesis of the sex pheromone 5(Z)-dodecenal.¹ 5(Z)-Dodecenoic acid levels are increased in culture medium from MCF-7 breast cancer cells compared to KMST-6 fibroblasts.² Levels of 5(Z)-dodecenoic acid are increased in the plasma of patients with medium-chain acyl-CoA dehydrogenase (MCAD) deficiency, an inborn error of metabolism characterized by hypoketotic hypoglycemia, medium-chain dicarboxylic aciduria, and intolerance to fasting.³

References

1. Bestmann, H.J., Attygalle, A.B., Garbe, W., *et al.* Chemical structure and final steps of biosynthesis of the female sex pheromone of *Gastropacha quercifolia* (Lepidoptera: Lasiocampidae). *Insect Biochem. Molec. Biol.* **23(7)**, 793-799 (1993).
2. Tanaka, M., Hsuan, C., Oeki, M., *et al.* Identification of characteristic compounds of moderate volatility in breast cancer cell lines. *PLoS One* **15(6)**, e0235442 (2020).
3. Onkenhout, W., Venizelos, V., van der Poel, P.F.H., *et al.* Identification and quantification of intermediates of unsaturated fatty acid metabolism in plasma of patients with fatty acid oxidation disorders. *Clin. Chem.* **41(10)**, 1467-1474 (1995).

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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