

Product Data Sheet

Product Name: (E)-2-Decenoic acid

Cat. No.: GC15373

Chemical Properties

Cas. No. 334-49-6

Chemical Name (E)-dec-2-enoic acid

SMILES CCCCCCCC=CC(=O)O

Formula $C_{10}H_{18}O_2$

M.Wt 170.25

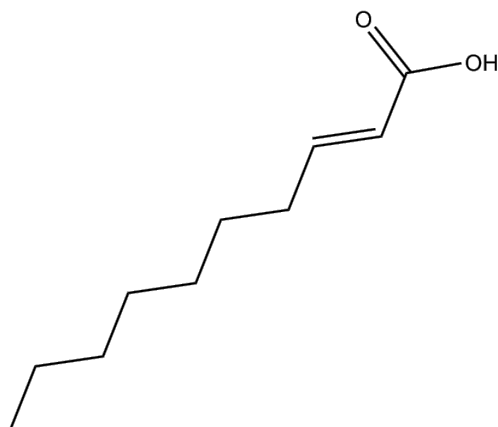
Solubility ≥ 8.8 mg/mL in DMSO, ≥ 161.4 mg/mL in EtOH

Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37°C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available size: ship with RT, or blue ice upon request.

Structure



Background

(E)-2-Decenoic acid is an interesting fatty acid isolated from royal jelly secretions of honey bees.

(E)-2-Decenoic acid is isolated along with 10-hydroxy-trans-2-decenoic acid, a fatty acid unique to royal jelly. (E)-2-Decenoic acid and 10-hydroxy-trans-2-decenoic acid are both described to demonstrate estrogenic activity, where the fatty acids demonstrate inhibition of 17β -estradiol binding.

Caution: Product has not been fully validated for medical applications. For research use only.

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to estrogen receptor- β .

References:

- [1]. Naumowicz M, Petelska AD, Figaszewski ZA. Impedance analysis of complex formation equilibria in phosphatidylcholine bilayers containing decanoic acid or decylamine. *Cell Biochem Biophys*. 2011 Sep;61(1):145-55.
- [2]. Kumar A, Singh S, Jain S, Kumar P. Synthesis, antimicrobial evaluation, QSAR and in Silico ADMET studies of decanoic acid derivatives. *Acta Pol Pharm*. 2011 Mar-Apr;68(2):191-204.
- [3]. Petelska AD, Figaszewski ZA. Interfacial tension of the lipid membrane formed from phosphatidylcholine-decanoic acid and phosphatidylcholine-decylamine systems. *J Membr Biol*. 2011 May;241(2):103-8.
- [4]. Hattori N et al. Royal jelly and its unique fatty acid, 10-hydroxy-trans-2-decenoic acid, promote neurogenesis by neural stem/progenitor cells in vitro. *Biomed Res*. 2007 Oct;28(5):261-6.
- [5]. Suzuki KM et al. Estrogenic activities of Fatty acids and a sterol isolated from royal jelly. *Evid Based Complement Alternat Med*. 2008 Sep;5(3):295-302.

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