

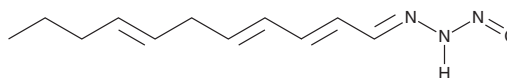
PRODUCT INFORMATION



Triacsin C

Item No. 10007448

CAS Registry No.: 76896-80-5
Formal Name: 2E,4E,7E-undecatrienal, nitrosohydrazone
Synonyms: FR 900190, WS 1228A
MF: C₁₁H₁₇N₃O
FW: 207.3
Purity: ≥95%
UV/Vis.: λ_{max}: 301 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years
Item Origin: Bacterium/*Streptomyces aureofaciens*



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

Laboratory Procedures

Triacsin C is supplied as a crystalline solid. A stock solution may be made by dissolving the triacsin C in the solvent of choice, which should be purged with an inert gas. Triacsin C is soluble in organic solvents such as methanol and DMSO. The solubility of triacsin C in these solvents is approximately 5 mg/ml.

Description

Triacsin C, originally isolated from *Streptomyces* sp., is an inhibitor of long fatty acid acyl-CoA synthetase (IC₅₀ = 6.3 μM in Raji cells).¹ It has been shown to interfere with lipid metabolism by inhibiting the *de novo* synthesis of triglycerides, diglycerides, and cholesterol esters.² It is also known to act as a hypotensive vasodilator, modulating endothelial nitric oxide synthase repalmitoylation by limiting palmitoyl CoA availability.³ Triacsin C can inhibit pancreatic β-cell function by suppressing the mobilization of intracellular calcium.⁴

References

1. Tomoda, H., Igarashi, K., Cyong, J.C., *et al.* Evidence for an essential role of long chain acyl-CoA synthetase in animal cell proliferation. Inhibition of long chain acyl-CoA synthetase by triacsins caused inhibition of Raji cell proliferation. *J. Biol. Chem.* **266**(7), 4214-4219 (1991).
2. Igal, R.A., Wang, P., and Coleman, R.A. Triacsin C blocks *de novo* synthesis of glycerolipids and cholesterol esters but not recycling of fatty acid into phospholipid: Evidence for functionally separate pools of acyl-CoA. *Biochem. J.* **324**(Pt 2), 529-534 (1997).
3. Weis, M.T., Crumley, J.L., Young, L.H., *et al.* Inhibiting long chain fatty acyl CoA synthetase increases basal and agonist-stimulated NO synthesis in endothelium. *Cardiovasc. Res.* **63**(2), 338-346 (2004).
4. Zhao, Y., Wang, L., Qiu, J., *et al.* Linoleic acid stimulates [Ca²⁺]_i increase in rat pancreatic beta-cells through both membrane receptor- and intracellular metabolite-mediated pathways. *PLoS One* **8**(4), e60255 (2013).

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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