

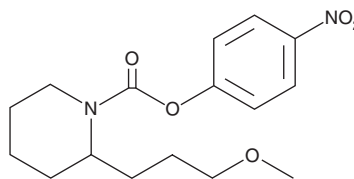
PRODUCT INFORMATION



WWL229

Item No. 16182

CAS Registry No.: 1338575-28-2
Formal Name: 2-(3-methoxypropyl)-1-piperidinecarboxylic acid, 4-nitrophenyl ester
MF: C₁₆H₂₂N₂O₅
FW: 322.4
Purity: ≥98%
UV/Vis.: λ_{max}: 203, 275 nm
Supplied as: A 5 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

WWL229 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 ethanol, DMSO, and dimethyl formamide (DMF) purged with an inert gas can be used. The solubility of WWL229 in ethanol and DMF is approximately 30 mg/ml, and approximately 25 mg/ml in DMSO.

WWL229 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the ethanolic solution of WWL229 should be diluted with the aqueous buffer of choice. WWL229 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of ethanol:PBS (pH 7.2) using this method.

Description

Mouse carboxylesterase 3 (Ces3, also named Ces1d) mediates triglyceride hydrolysis in white adipose tissue, liberating free fatty acids into circulation.¹ Although important for basal lipolysis, Ces3 expression can be induced by xenobiotics.^{2,3} Ces3 activity is significantly elevated during adipocyte differentiation.⁴ WWL229 is a selective inhibitor of Ces3 (IC₅₀ = 1.94 μM) that has no significant effect on other, related enzymes.⁴ By inhibiting the triglyceride hydrolase activity of Ces3, WWL229 promotes lipid storage in cultured adipocytes and prevents basal lipolysis.⁴

References

1. Soni, K.G., Lehner, R., Metalnikov, P., *et al.* Carboxylesterase 3 (EC 3.1.1.1) is a major adipocyte lipase. *J. Biol. Chem.* **279**(39), 40683-40689 (2004).
2. Wei, E., Gao, W., and Lehner, R. Attenuation of adipocyte triacylglycerol hydrolase activity decreases basal fatty acid efflux. *J. Biol. Chem.* **282**(11), 8027-8035 (2007).
3. Furihata, T., Hosokawa, M., Koyano, N., *et al.* Identification of di-(2-ethylhexyl) phthalate-induced carboxylesterase 1 in C57BL/6 mouse liver microsomes: Purification, cDNA cloning, and baculovirus-mediated expression. *Drug Metab. Dispos.* **32**(10), 1170-1177 (2004).
4. Dominguez, E., Galmozzi, A., Chang, J.W., *et al.* Integrated phenotypic and activity-based profiling links Ces3 to obesity and diabetes. *Nat. Chem. Biol.* **10**(2), 113-121 (2014).

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.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 03/25/2026

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM