

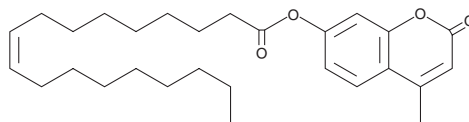
PRODUCT INFORMATION



4-Methylumbelliferyl Oleate

Item No. 19590

CAS Registry No.: 18323-58-5
Formal Name: 9Z-octadecenoic acid-4-methyl-2-oxo-2H-1-benzopyran-7-yl ester
Synonyms: 7-hydroxy-4-Methylcoumarin Oleate, 4-Methylumbelliferone Oleate, 4-MU Oleate, 4-MUO
MF: C₂₈H₄₀O₄
FW: 440.6
Purity: ≥98%
UV/Vis.: λ_{max}: 274, 312 nm
Supplied as: A low-melting solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

4-Methylumbelliferyl (4-MU) oleate is supplied as a solid. A stock solution may be made by dissolving the 4-MU oleate in the solvent of choice, which should be purged with an inert gas. 4-MU Oleate is soluble in organic solvents such as chloroform, DMSO, and dimethyl formamide. The solubility of 4-MU oleate in these solvents is approximately 20, 0.1, and 10 mg/ml, respectively.

Description

4-MU Oleate is a fluorogenic substrate for acid and alkaline lipases.¹⁻³ It is cleaved by lipases, liberating 4-MU, which has an emission maximum at 445-454 nm. The excitation maximum for 4-MU is pH-dependent: 330, 370, and 385 nm at pH 4.6, 7.4, and 10.4, respectively.⁴

References

1. Armstrong, M.L., Mathur, S.N., Sando, G.N., *et al.* Lipid metabolism in xanthomatous skin of hypercholesterolemic rabbits. *Am. J. Pathology* **125(2)**, 339-348 (1986).
2. Moncla, B.J. and Pryke, K.M. Oleate lipase activity in *Gardnerella vaginalis* and reconsideration of existing biotype schemes. *BMC Microbiol.* **9:78**, (2009).
3. Ogawa, A., Kobayashi, T., Sakai, F., *et al.* *Lactobacillus gasseri* SBT2055 suppresses fatty acid release through enlargement of fat emulsion size *in vitro* and promotes fecal fat excretion in healthy Japanese subjects. *Lipids Health Dis.* **14:20**, (2015).
4. Zhi, H., Wang, J., Wang, S., *et al.* Fluorescent properties of hymecromone and fluorimetric analysis of hymecromone in compound dantong capsule. *J. Spectrosc.* 147128 (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.

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, 11/09/2022

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