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Product Information

4-Methylumbelliferyl palmitate

Product Number **M 7259**

Storage Temperature -0 °C

Product Description

Molecular Formula: $C_{26}H_{38}O_4$

Molecular Weight: 414.6

CAS Number: 17695-48-6

Melting Point: 70 - 72 °C

This product a sensitive fluorogenic substrate for the measurement of acid and alkaline lipase activity.^{1,2}

When this product is used as a substrate for lipase, the released methylumbelliferone is monitored at 450 nm. The excitation wavelength is 330 nm at pH 4.6, 370 nm at pH 7.4 and 385 nm at pH 10.4.¹

Precautions and Disclaimer

For Laboratory Use Only. Not for drug, household or other uses.

Preparation Instructions

This product is soluble in chloroform (25 mg/ml), yielding a clear, colorless solution.

When used as a lipase substrate, stock preparations of substrate were made by dissolving the appropriate amount of acylated 4-MU in 1.5 ml methyl cellosolve and diluting to 25 ml with distilled water for a final concentration of 1 mM ester. The esters do not stay in solution. Some esters form homogeneous emulsions, and the butyryl ester slowly crystallized from a clear solution.¹

References

1. Jacks, T. J., and Kircher, H. W., Fluorometric assay for the hydrolytic activity of lipase using fatty acyl esters of 4-methylumbelliferone. *Anal. Biochem.*, **21(2)** 279-285 (1967).
2. Kelly, S., and Bakhru-Kishore, R., Fluorimetric assay of acid lipase in human leukocytes. *Clin. Chim. Acta*, **97(2-3)**, 239-242 (1979).

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