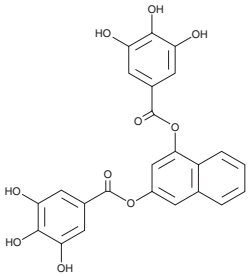
PRODUCT INFORMATION

UCM05

Item No. 19090

CAS Registry No.:	1094451-90-7
Formal Name:	3,4,5-trihydroxy-benzoic acid 1,1'-(1,3-naphthalenediyl) ester
Synonym:	G28UCM
MF:	$C_{24}H_{16}O_{10}$
FW:	464.4
Purity:	≥95%
UV/Vis.:	λ_{max}: 223, 288 nm
Supplied as:	A crystalline 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

UCM05 is supplied as a crystalline solid. A stock solution may be made by dissolving the UCM05 in the solvent of choice. UCM05 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of UCM05 in these solvents is approximately 12, 5, and 10 mg/ml respectively.

UCM05 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, UCM05 should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. UCM05 has a solubility of approximately 0.02 mg/ml in a 1:40 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

UCM05 is an inhibitor of fatty acid synthase that strongly suppresses the growth of human breast cancer cell lines (IC_{50} = 21 µM for SK-BR-3 cells).[1,2] It does not alter carnitine palmitoyltransferase 1 activity or induce weight loss in mice.[1,2] UCM05 can reduce cleavage of poly(ADP-ribose) polymerase, phosphorylation of HER2, Akt, and ERK1/2, and growth of established xenografts *in vivo*.[3] UCM05 also blocks the GTP-binding site of the cell division protein FtsZ from *Bacillus*, preventing bacterial division.[4]

References

1. Puig, T., Turrado, C., Benhamú, B., *et al.* Novel inhibitors of fatty acid synthase with anticancer activity. *Clin. Cancer Res.* **15(24)**, 7608-7615 (2009).
2. Turrado, C., Puig, T., García-Cárceles, J., *et al.* New synthetic inhibitors of fatty acid synthase with anticancer activity. *J. Med. Chem.* **55(11)**, 5013-5023 (2012).
3. Puig, T., Aguilar, H., Cufi, S., *et al.* A novel inhibitor of fatty acid synthase shows activity against HER2+ breast cancer xenografts and is active in anti-HER2 drug-resistant cell lines. *Breast Cancer Res.* **13(6)**, (2011).
4. Ruiz-Avila, L.B., Huecas, S., Artola, M., *et al.* Synthetic inhibitors of bacterial cell division targeting the GTP-binding site of FtsZ. *ACS Chem. Biol.* **8(9)**, 2072-2083 (2013).

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