PRODUCT INFORMATION

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3-Oxobetulin Acetate

Item No. 33067

CAS Registry No.: Formal Name: Synonyms:	136587-07-0 28-(acetyloxy)-lup-20(29)-en-3-one 28-O-acetyl-3-Oxobetulin, 3-oxo-28-O-Acetylbetulin	
MF:	$C_{32}H_{50}O_{3}$	
FW:	482.7	
Purity:	≥95%	
Supplied as:	A crystalline solid	
Storage:	-20°C	Ŭ X Ĥ
Stability:	≥4 years	

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

Laboratory Procedures

3-Oxobetulin acetate is supplied as a crystalline solid. A stock solution may be made by dissolving the 3-oxobetulin acetate in the solvent of choice, which should be purged with an inert gas. 3-Oxobetulin acetate is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of 3-oxobetulin acetate in these solvents is approximately 25, 10, and 30 mg/ml, respectively.

Description

3-Oxobetulin acetate is a derivative of the cholesterol biosynthesis inhibitor betulin (Item No. 11041).¹ It inhibits the growth of P388 murine lymphocytic leukemia cells (EC₅₀ = 0.12 μ g/ml), as well as human MCF-7 breast, SF-268 CNS, H460 lung, and KM20L2 colon cancer cells (GI₅₀s = 8, 10.6, 5.2, and 12.7 μ g/ml, respectively), but not BxPC-3 pancreas or DU145 prostate cancer cells (GI₅₀s = >10 μ g/ml for both).² 3-Oxobetulin acetate inhibits replication of X4 tropic recombinant HIV (NL4.3-Ren) in MT-2 lymphoblastoid cells (IC₅₀ = 13.4 μ M).³ It is also active against *L. donovani* amastigotes when used at a concentration of 50 µM.

References

- 1. Alakurtti, S., Bergström, P., Sacerdoti-Sierra, N., et al. Anti-leishmanial activity of betulin derivatives. J. Antibiot. (Tokyo) 63(3), 123-126 (2010).
- 2. Pettit, G.R., Melody, N., Hempenstall, F., et al. Antineoplastic agents. 595. Structural modifications of betulin and the X-ray crystal structure of an unusual betulin amine dimer. J. Nat. Prod. 77(4), 863-872 (2014).
- 3. Callies, O., Bedoya, L.M., Beltrán, M., et al. Isolation, structural modification, and HIV inhibition of pentacyclic lupane-type triterpenoids from Cassine xylocarpa and Maytenus cuzcoina. J. Nat. Prod. 78(5), 1045-1055 (2015).

WARNING THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFFTY DATA

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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