

PRODUCT INFORMATION



PA-457

Item No. 21339

CAS Registry No.: 174022-42-5

Formal Name: (3 β)-3-(3-carboxy-3-methyl-1-oxobutoxy)-lup-20(29)-en-28-oic acid

Synonyms: 3-O-(3',3'-Dimethylsuccinyl) Betulinic Acid, Bevirimat, FH11327, MPC-4326

MF: C₃₆H₅₆O₆

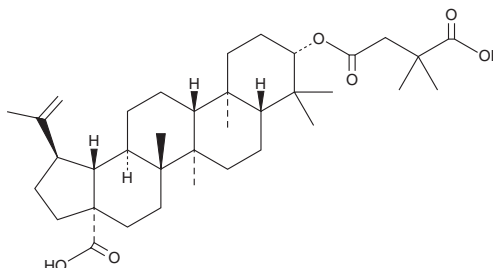
FW: 584.8

Purity: $\geq 98\%$

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

PA-457 is supplied as a crystalline solid. A stock solution may be made by dissolving the PA-457 in the solvent of choice, which should be purged with an inert gas. PA-457 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of PA-457 in these solvents is approximately 2.5, 25, and 30 mg/ml, respectively.

PA-457 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, PA-457 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. PA-457 has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

PA-457 is an inhibitor of HIV-1 virion maturation.^{1,3} It inhibits the cleavage of the Gag capsid (CA) precursor CA-SP1 to the mature CA protein. PA-457 inhibits the replication of drug-sensitive and -resistant clinical isolates of HIV-1 in isolated human peripheral blood mononuclear cells (PBMCs; mean IC₅₀s = 10.3 and 7.8 nM, respectively).² *In vivo*, it prevents replication of HIV-1 in SCID-hu Thy/Liv mice when administered at a dose of 100 mg/kg.⁴

References

1. Martin, D.E., Salzwedel, K. and Allaway, G.P. Bevirimat: A novel maturation inhibitor for the treatment of HIV-1 infection. *Antivir. Chem. Chemother.* **19**(3), 107-113 (2008).
2. Li, F., Goila-Gaur, R., Salzwedel, K., *et al.* PA-457: A potent HIV inhibitor that disrupts core condensation by targeting a late step in Gag processing. *Proc. Natl. Acad. Sci. USA* **100**(23), 13555-13560 (2003).
3. Wang, D., Lu, W., and Li, F. Pharmacological intervention of HIV-1 maturation. *Acta Phatm. Sin. B* **5**(6), 493-499 (2015).
4. Soddart, C.A., Joshi, P., Sloan, B., *et al.* Potent activity of the HIV-1 maturation inhibitor bevirimat in SCID-hu Thy/Liv mice. *PLoS One* **2**(11), e1251 (2007).

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.

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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