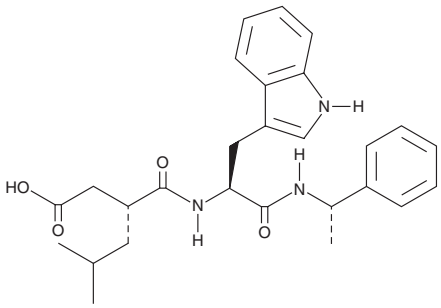
PRODUCT INFORMATION

GM 1489

Item No. 24313

CAS Registry No.:	171347-75-4
Formal Name:	(3R)-3-[[[(1S)-1-(1H-indol-3-ylmethyl)-2-oxo-2-[[(1S)-1-phenylethyl]amino]ethyl]amino]carbonyl]-5-methyl-hexanoic acid
MF:	$C_{27}H_{33}N_3O_4$
FW:	463.6
Purity:	≥98%
UV/Vis.:	λ_{max}: 222, 282 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

GM 1489 is supplied as a crystalline solid. A stock solution may be made by dissolving the GM 1489 in the solvent of choice. GM 1489 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of GM 1489 in ethanol is approximately 20 mg/ml and approximately 50 mg/ml in DMSO and DMF.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of GM 1489 can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of GM 1489 in PBS, pH 7.2, is approximately 0.2 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

GM 1489 is a broad-spectrum inhibitor of matrix metalloproteinases (MMPs) with K_i values of 0.002, 0.1, 0.5, 0.2, and 20 µM for MMP-1, MMP-8, MMP-2, MMP-9, and MMP-3, respectively.[1] It reduces 5-aza-2'-deoxycytidine-induced increases in MMP-1, MMP-2, MMP-3, MMP-7, MMP-9, and MMP-14 expression as well as cell invasion in AsPC-1, BxPC-3, Hs766T, MiaPaCa2, and PANC-1 cancer cells.[2] Topical administration of GM 1489 (100 µg) inhibits increases in ear thickness and epidermal hyperplasia induced by phorbol 12-myristate 13-acetate (TPA; Item No. 10008014) and phorbol dibutyrate (PdiBu) in mice.[1]

References

1. Holleran, W.M., Galardy, R.E., Gao, W.N., *et al.* Matrix metalloproteinase inhibitors reduce phorbol ester-induced cutaneous inflammation and hyperplasia. *Arch. Dermatol. Res.* **289(3)**, 138-144 (1997).
2. Sato, N., Maehara, N., Su, G.H., *et al.* Effects of 5-aza-2'-deoxycytidine on matrix metalloproteinase expression and pancreatic cancer cell invasiveness. *J. Natl. Cancer Inst.* **95(4)**, 327-330 (2003).

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