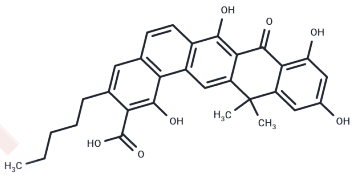
Data Sheet (Cat.No.T35978)

TargetMol

Benastatin A

Chemical Properties



CAS No. : 138968-85-1

Formula: C30H28O7

Molecular Weight: 500.54

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Benastatin A is a polyketide synthase-derived benastatin that has been found inStreptomycesand has diverse biological activities.1,2,3It inhibits glutathione S-transferase (GST; Ki= 5 μM for the rat liver enzyme).2Benastatin A is active against several bacteria, including methicillin-resistantS. aureus(MRSA; MIC = 3.12 μg/ml). It induces apoptosis and cell cycle arrest at the G1/G0phase in Colon 26 mouse colon cancer cells when used at concentrations of 20 and 16 μM, respectively.3
Targets(IC50)	Others,GST

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.9978 mL	9.9892 mL	19.9784 mL
5 mM	0.3996 mL	1.9978 mL	3.9957 mL
10 mM	0.1998 mL	0.9989 mL	1.9978 mL
50 mM	0.040 mL	0.1998 mL	0.3996 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Xu, Z., Schenk, A., and Hertweck, C.Molecular analysis of the benastatin biosynthetic pathway and genetic engineering of altered fatty acid-polyketide hybridsJ. Am. Chem. Soc.129(18)6022-6030(2007)

Aoyagi, T., Aoyama, T., Kojima, F., et al.Benastatins A and B, new inhibitors of glutathione S-transferase, produced by Streptomyces sp. MI384-DF12. I. Taxonomy, production, isolation, physico-chemical properties and biological activitiesJ. Antibiot. (Tokyo)45(9)1385-1390(1992)

Kakizaki, I., Ookawa, K., Ishikawa, T., et al.Induction of apoptosis and cell cycle arrest in mouse colon 26 cells by benastatin AJpn. J. Cancer Res.91(11)1161-1168(2000)

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