Product Data Sheet

Product Name: Virstatin
Cat. No.: GC18298

Chemical Properties

Cas. No.	88909-96-0		
Chemical Name	1,3-dioxo-1H-benz[de]isoquinoline-2(3H)-butanoic acid		
SMILES	O=C(C1=CC=CC2=CC=CC3=C12)N(CCCC(O)=O)C3=O		
Formula	$C_{16}H_{13}NO_4$	M.Wt	283.3
Solubility	DMF: 33 mg/ml,DMSO: 33 mg/ml,DMSO:PBS(pH 7.2) (1:3): 0.25 mg/ml	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure	Virstatin		

Background

Virstatin is an inhibitor of the ToxT transcriptional regulator of V. cholerae, which regulates transcription of virulence factors that enable intestinal colonization. It inhibits ToxT dimerization and decreases expression of cholera toxin (CT) and toxin coregulated pilus (TCP) when used at a concentration of 50 µM but virstatin does not inhibit growth of V. cholerae at this concentration (MBCs = 600 and 1,200 µM for O395 and C6706 strains, respectively). Virstatin administration protects infant mice (5 to 6 days old) from intestinal colonization by ToxT-dependent V. cholerae but not from strains that colonize via non-ToxT-dependent mechanisms. Virstatin (100 µM) inhibits biofilm formation by A. baumannii by 38% under static conditions, which is at a lower concentration than that which inhibits growth (MIC = 1.6 mM). It decreases the motility of 60% of 30 mobile A. baumannii strains. Virstatin also binds to the accessory cholera enterotoxin (Ace) from V. cholerae (Ka = 9 x 104 M-1; Kd = 11 uM).

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