Product Data Sheet

Product Name: Debromohymenialdisine
Cat. No.: GC18666

Chemical Properties

Cas. No.	75593-17-8		
Chemical Name	(4Z)-4-(2-amino-1,5-dihydro-5-oxo-4H-imidazol-4-ylidene)-4,5,6,7-tetrahydro-pyrrolo[2,3-c]azepin-8(1H)-one		
SMILES	O=C1/C(NC(N)=N1)=C2C(C=CN3)=C3C(NCC/2)=O		
Formula	$C_{11}H_{11}N_5O_2$	M.Wt	245.2
Solubility	DMSO: soluble,Ethanol: soluble,Methanol: soluble	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	Debromohymenialdisine		

Background

Damaged DNA in humans is detected by sensor proteins that transmit a signal through checkpoint kinases (Chks) Chk1 and Chk2. Debromohymenialdisine (DBH) is a marine sponge alkaloid that inhibits Chk1 and Chk2 (IC50 = 3 and 3.5 uM, respectively), blocking G2 arrest. Because it does not significantly affect the activity of ataxia-telangiectasia mutated (ATM) or ATM-Tad2-related protein, DBH is a useful tool for studying the roles of Chk1 and Chk2 in DNA repair and cell cycle regulation. DBH also inhibits MAP kinase kinase 1 (IC50 = 881 nM), glycogen synthase kinase 3β (IC50 = 1.39 μM), cyclin-dependent kinase 5/p25 (IC50 = 9.12 μM), protein tyrosine kinase 6 (IC50 = 0.6 μM), and other kinases largely unrelated to DNA damage/repair and cell cycling.

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