Product Data Sheet

Product Name: LDC4297 hydrochloride
Cat. No.: GC66446

Chemical Properties

Cas. No.	2319747-14-1		
Formula	$C_{23}H_{29}ClN_8O$	M.Wt	468.98
Solubility		Storage	4°C, away from moisture and light
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	LDC4297 hydrochloride		

Background

LDC-4297 is an inhibitor of cyclin-dependent kinase 7 (CDK7; IC_{50} = <5 nM).[1] It is selective for CDK7 over CDK4, CDK6, and CDK9 (IC_{50}s = >10, >10, and 1.71 µM), however, it also inhibits CDK2 and CDK1 (IC_{50}s = 6.4 and 53.7 nM, respectively). LDC-4297 (10-100 nM) induces apoptosis in A549, HeLa, and HCT116 cancer cells in a concentration-dependent manner. It inhibits human cytomegalovirus (HCMV) replication in human fibroblasts (EC_{50} = 24.5 nM).[2] LDC-4297 also reduces replication of *Herpesviridae*, *Adenoviridae*, *Poxviridae*, *Retroviridae*, and *Orthomyxoviridae* family viruses (EC_{50}s = 0.02-1.13 µM).

1.Kelso, T.W.R., Baumgart, K., Eickhoff, J., et al.Cyclin-dependent kinase 7 controls mRNA synthesis by affecting stability of preinitiation complexes, leading to altered gene expression, cell cycle progression, and survival of tumor cellsMol. Cell. Biol.34(19)3675-3688(2014) 2.Hutterer, C., Eickhoff, J., Milbradt, J., et al.A novel CDK7 inhibitor of the pyrazolotriazine class exerts broad-spectrum antiviral activity at nanomolar concentrationsAntimicrob. Agents Chemother.59(4)2062-2071(2015)

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