Product Data Sheet

Product Name: Aclacinomycin A hydrochloride
Cat. No.: GC35238

Chemical Properties

Cas. No.	75443-99-1		
SMILES	O=C([C@@H]1C2=CC(C(C3=CC=CC(O)=C43)=O)=C(C4=O)C(O)=C2[C@@H](O[C@@](O[C@@H](C)[C@H]5O[C@@](O[C@@H](C)[C@H]6O[C@](CCC7=O)([H])O[C@H]7C)([H])C[C@@H]6O)([H])C[C@@H]5N(C)C)C[C@]1(O)CC)OC.Cl		
Formula	$C_{42}H_{54}ClNO_{15}$	M.Wt	848.33
Solubility	DMSO: ≥ 125 mg/mL (147.35 mM)	Storage	4°C, protect from 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	Aclacinomycin A hydrochloride		

Background

Aclacinomycin A hydrochloride (Aclarubicin hydrochloride), a fluorescent molecule and the first described non-peptidic inhibitor showing discrete specificity for the CTRL (chymotrypsin-like) activity of the 20S proteasome[1]. Aclacinomycin A hydrochloride is also a dual inhibitor of topoisomerase I and II[2]. An effective anthracycline chemotherapeutic agent for hematologic cancers and solid tumors[3]. 20S proteasome[1].Topoisomerase I and II[2].

References:

[1]. Isoe T, et al. Inhibition of different steps of the ubiquitin system by CDDP and aclarubicin. Biochim Biophys Acta. 1992 Sep 15;1117(2):131-5. [2]. Hajji N, et al. Induction of genotoxic and cytotoxic damage by aclarubicin, a dual topoisomerase inhibitor. Mutat Res. 2005 May 2;583(1):26-35. [3]. Iihoshi H, et al. Aclarubicin, an anthracycline anti-cancer drug, fluorescently contrasts mitochondria and reduces the oxygen consumption rate in living human cells. Toxicol Lett. 2017 Aug 5;277:109-114.

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