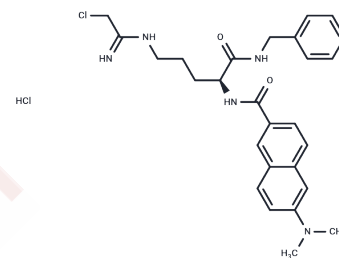


YW3-56 (hydrochloride) (technical grade)

Chemical Properties

CAS No. :	2309756-20-3
Formula:	C ₂₇ H ₃₃ Cl ₂ N ₅ O ₂
Molecular Weight:	530.49
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	YW3-56 is an inhibitor of protein arginine deiminase 2 (PAD2) and PAD4 (IC ₅₀ s = 0.5-1 and 1-5 μM, respectively). It inhibits the growth of U2OS osteosarcoma cells (IC ₅₀ = ~2.5 μM) in a p53-dependent mannervia induction of SESN2 and subsequent inhibition of mTORC1. YW3-56 (10 mg/kg) reduces tumor growth in an S-180 murine sarcoma tumor model. It also inhibits tumor growth in the 1883 MDA-MB-231 breast cancer bone metastasis mouse xenograft model. ²
Targets(IC ₅₀)	Others, Autophagy, mTOR, PAD, PERK, MDM-2/p53

Solubility Information

Solubility	Methanol: 10 mg/mL (18.85 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.885 mL	9.4252 mL	18.8505 mL
5 mM	0.377 mL	1.885 mL	3.7701 mL
10 mM	0.1885 mL	0.9425 mL	1.885 mL
50 mM	0.0377 mL	0.1885 mL	0.377 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

Wang, Y., Li, P., Wang, S., et al. Anticancer peptidylarginine deiminase (PAD) inhibitors regulate the autophagy flux and the mammalian target of rapamycin complex 1 activity. *The Journal of Biological Chemistry* 287(31):25941-25952 (2012)

Wang, S., Chen, X.A., Hu, J., et al. ATF4 gene network mediates cellular response to the anticancer PAD inhibitor YW3-56 in triple-negative breast cancer cells. *Mol. Cancer Ther.* 14(4):877-888(2015)

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