YW3-56 (hydrochloride)

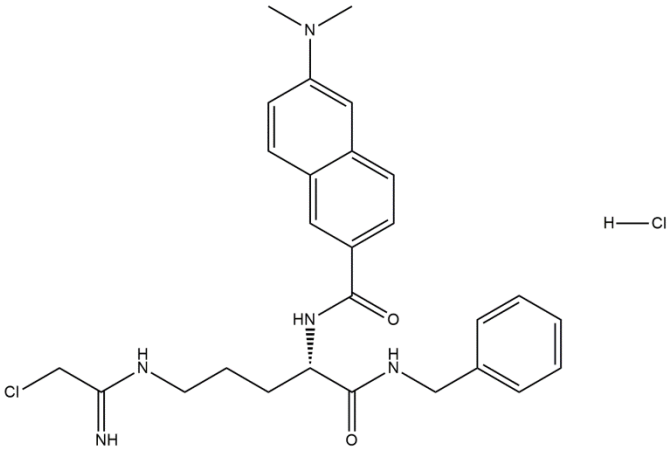
08/19

ALTERNATE NAMES: N-[(1S)-4-[(2-chloro-1-iminoethyl)amino]-1-[[(phenylmethyl)amino]carbonyl]butyl]-6-(dimethylamino)-2-naphthalenecarboxamide, monohydrochloride

CATALOG #:

B2858-500	500 µg
B2858-1000	1000 µg

STRUCTURE:



MOLECULAR FORMULA: $C_{27}H_{32}ClN_5O_2.HCl$

MOLECULAR WEIGHT: 530.49

FORMULATION: A solution in methanol

PURITY: ≥80%

DESCRIPTION: YW3-56 is an inhibitor of protein arginine deiminases PAD2 and PAD4 which convert protein arginine residues to citrulline. The IC_{50} for inhibition of PAD4 and PAD2 is about 1–2 µM and 0.5–1 µM respectively. YW3-56 inhibits the growth of osteosarcoma U2OS cells with an IC_{50} of 2.5 µM. YW3-56 induces p53 target genes SESN2 and DDIT4 which repress mTORC1 kinase activity. It perturbs autophagy and inhibits the growth of triple-negative breast cancer xenograft tumors in mice.

STORAGE TEMPERATURE: -20ºC

HANDLING: Do not take internally. Wear gloves and mask when handling the product! Avoid contact by all modes of exposure.

REFERENCE:

1. 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 Chemisty 287(31), 25941-25952 (2012).
2. 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).

RELATED PRODUCTS:

F-Amidine (trifluoroacetate salt) (Cat. No. B2803)
GSK-199 hydrochloride (Cat. No. B1037)
BB-Cl-Amidine (Cat. No. B2847)
Cl-Amidine (hydrochloride) (Cat. No. B2802)
GSK-121 trifluoroacetate (Cat. No. B1034)

DISCLAIMER: ***FOR RESEARCH USE ONLY! Not to be used on humans.***