

Product Data Sheet

Product Name: ZZW-115

Cat. No.: GC61392

Chemical Properties

Cas. No. 801991-87-7

SMILES FC(C(C=C1N2CCCN3CCN(CCN(C)C)CC3)=CC=C1SC4=C2C=CC=C4)(F)FFormula $C_{24}H_{31}F_3N_4S$ M.Wt 464.59Solubility Storage Store at $-20^{\circ}C$

General tips For obtaining a higher solubility, please warm the tube at $37^{\circ}C$ and shake it in the ultrasonic bath for a while. Stock solution can be stored below $-20^{\circ}C$ 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

Background

ZZW-115 is an inhibitor of nuclear protein 1 (NUPR1).¹ It binds to NUPR1 ($K_D = 2.1 \mu M$) in a cell-free assay. ZZW-115 is cytotoxic against a panel of 11 pancreatic ductal adenocarcinoma cell lines ($IC_{50}s = 0.84-4.93 \mu M$), as well as against a panel of 16 additional cancer cell lines, including glioblastoma, lymphoma, and leukemia cells ($IC_{50}s = 0.25-7.75 \mu M$). It induces apoptosis and necrosis in MiaPaCa-2, LIPC, Foie8b, 02-063, and HN14 pancreatic cancer cells when used at concentrations of 3 and 5 μM . ZZW-115 induces accumulation of reactive oxygen species (ROS), lipid peroxidation, and ferroptosis in MiaPaCa-2 cells in a concentration-dependent manner.² It reduces tumor growth in a MiaPaCa-2 mouse xenograft model when administered at doses of 1, 2.5, or 5 mg/kg.¹

1. Santofimia-Castaño, P., Xia, Y., Lan, W., et al. Ligand-based design identifies a potent NUPR1 inhibitor exerting anticancer activity via necroptosis. *Clin. Invest.* 129(6):2500-2513(2019)
 2. Huang, C., Santofimia-Castaño, P., Liu, X., et al. NUPR1 inhibitor ZZW-115 induces ferroptosis in a mitochondria-dependent manner. *Cell Death Discov.* 7(1):269(2021)

Caution: Product has not been fully validated for medical applications. For research use only.

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