

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)F

Formula $C_{24}H_{31}F_3N_4S$ M.Wt 464.59

Solubility Storage Store at -20°C

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

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

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Structure



Background

ZZW-115 is a potent NUPR1 inhibitor, with a K_d of 2.1 μM . ZZW-115 induces tumor cell death by necroptosis and apoptosis. Anticancer activity[1][2].

ZZW-115 (0.1-33 μM ; 72 hours) is efficient in killing cancer cells, with an IC_{50} in the range of 0.84 μM (ANOR) to 4.93 μM (HN14)[1]. ZZW-115 (0-100 μM ; 24-72 hours) is efficient to kill these tumor cells with an IC_{50} in the range of 0.42 μM (Hep2G cells) to 7.75 μM (SaOS-2 cells)[1]. ZZW-115 induces pancreatic cell death by necrosis and apoptosis. ZZW-115 treatment induces a decrease in ATP production and induces a ROS overproduction[1]. LDH release is significantly higher in ZZW-115-treated cells (MiaPaCa-2, 02-063, LIPC, Foie8b, and HN14 cells) than in control cells in a concentration-dependent manner. Similarly, caspase 3/7 activity is also greater in ZZW-115-treated cells. These experiments demonstrated that ZZW-115 exerted both pronecrotic and proapoptotic effects[1]. Cell Viability Assay[1] Cell Line: ANOR cells, MiaPaCa-2, 02-063, 01008, LIPC, 02136,

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HN01,01046, AOIPC, Foie8b, HN14 cells

ZZW-115 (0.5-5 mg/kg; injection; daily for 30 days) inhibits the growth of pancreatic xenografted tumors[1].ZZW-115 (5 mg/kg for 30 days; immunocompetent C57BL/6 mice were orthotopically implanted with Panc02 cells) treatment shows the tumor size is almost unmeasurable in some cases[1]. Animal Model: NMRI-Foxn1nu/Foxn1nu mice (nude mice) xenografted with MiaPaCa-2 cells[1]

[1]. Santofimia-Castaño P, et al. Ligand-based design identifies a potent NUPR1 inhibitor exerting anticancer activity via necroptosis. J Clin Invest. 2019;129(6):2500-2513. Published 2019 Mar 28. [2]. Santofimia-Castaño P, et al. Targeting the Stress-Induced Protein NUPR1 to Treat Pancreatic Adenocarcinoma. Cells. 2019;8(11):1453. Published 2019 Nov 17.

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