

Product Data Sheet

Product Name: OSU-T315

Cat. No.: GC36821

Chemical Properties

Cas. No. 2070015-22-2

SMILES O=C(NC)CCC1=CC(C2=CC=C(C3=CC=C(C(F)(F)F)C=C3)C=C2)=NN1C4=CC=C(N5CCNCC5)C=C4

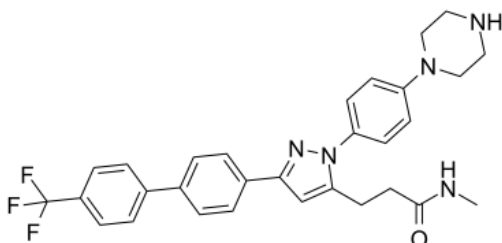
Formula C30H30F3N5O M.Wt 533.59

Solubility DMSO: ≥ 50 mg/mL (93.70 mM);
Water: < 0.1 mg/mL (insoluble) 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.

Structure



Background

OSU-T315 (ILK-IN-1) is a small Integrin-linked kinase (ILK) inhibitor with an IC_{50} of $0.6\text{ }\mu\text{M}$, inhibiting PI3K/AKT signaling by dephosphorylation of AKT-Ser473 and other ILK targets (GSK- 3β and myosin light chain)[1]. OSU-T315 abrogates AKT activation by impeding AKT localization in lipid rafts and triggers caspase-dependent apoptosis in an ILK-independent manner[2]. OSU-T315 causes cell death through apoptosis and autophagy[1]. IC_{50} : $0.6\text{ }\mu\text{M}$; Integrin-linked kinase (ILK) inhibitor[1]

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

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OSU-T315 (Compound 22; 0-5 μ M; 24 hours) exhibits high in vitro potency against a panel of prostate and breast cancer cell lines with a IC₅₀ range of 1-2.5 μ M[1]. OSU-T315 (0-4 μ M; 24 hours) can reduce YB-1, HER2, and EGFR expression; shows a modest suppressive effect on phosphorylated S6 levels, exhibits dose-dependent suppressive effects on the levels of phospho-ERK1/2 and phospho-p38, while that of phospho-JNK remains unaltered in PC-3 cell[1]. OSU-T315 (0-4 μ M; 24 hours) causes autophagy through ILK inhibition[1]. Cell Viability Assay [1] Cell Line: Prostate cancer cells: LNCaP, PC-3; breast cancer cells: MDA-MB-231, MDA-MB-468, SKBR3, MCF-7; PrEC and MEC cells

OSU-T315 (Oral gavage; 25 mg/kg, 50 mg/kg; single daily; 35 days) has a suppressive effect of on PC-3 xenograft tumor growth [1]. No other obvious toxicity is observed in mice[1]. Animal Model: Male NCr athymic nude mice with PC-3 tumor xenografts

[1]. Su-Lin Lee, et al Identification and Characterization of a Novel Integrin-Linked Kinase Inhibitor. J Med Chem. 2011 Sep 22; 54(18): 6364-6374 [2]. Liu TM, et al. OSU-T315: a novel targeted therapeutic that antagonizes AKT membrane localization and activation of chronic lymphocytic leukemia cells. Blood. 2015 Jan 8;125(2):284-95.

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