

Product Data Sheet

Product Name: ZT-12-037-01

Cat. No.: GC37973

Chemical Properties

Cas. No. 2328073-61-4

SMILES COC1=CC2=NC(NC3CC3)=NC(NC4CCN(C(C)C)CC4)=C2C=C1OC

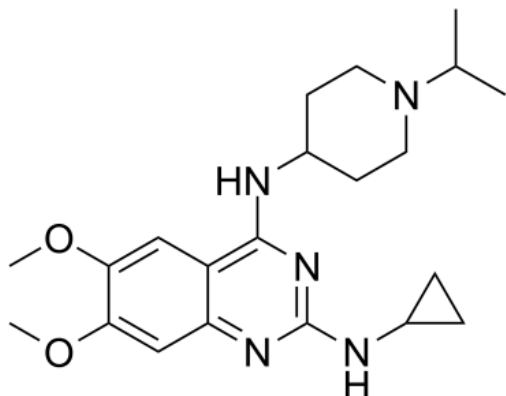
Formula $C_{21}H_{31}N_5O_2$ M.Wt 385.5

Solubility DMSO: 8.33 mg/mL (21.61 mM) 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

ZT-12-037-01 is a STK19-targeted inhibitor, has a high-affinity interaction with STK19 protein and

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inhibits oncogenic NRAS-driven melanocyte malignant transformation. ZT-12-037-01 is an ATP-competitive inhibitor, inhibiting phosphorylation of NRAS (major isoform of Ras family) with an IC₅₀ of 24 nM[1].

ZT-12-037-01 (3 μ M; 14 days) significantly inhibits mutant NRAS-STK19-driven melanocyte colony formation and proliferation[1]. ZT-12-037-01 (0-3 μ M) has an inhibitory effects of ZT-12-037-01 on STK19WT and STK19D89N-activated NRAS phosphorylation in HPMs[1]. Cell Proliferation Assay[1]
Cell Line: CDK4 (R24C) melanocyte cells; hTERT melanocyte cells; p53DD melanocyte cells

ZT-12-037-01 (injection subcutaneously; 25-50 mg/kg; once daily; 21 days) inhibits growth of SK-MEL-2 xenograft melanoma and the sections of tumors indicates induction of apoptosis by increasing cleaved caspase-3[1]. Animal Model: SK-MEL-2 xenograft melanoma nude mice with hTERT/p53DD/CDK4(R24C) melanocytes[1]

[1]. Yin C, et al. Pharmacological Targeting of STK19 Inhibits Oncogenic NRAS-Driven Melanomagenesis. Cell. 2019 Feb 21;176(5):1113-1127.e16.

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