

NCT02

Chemical Properties

CAS No. : 790245-61-3

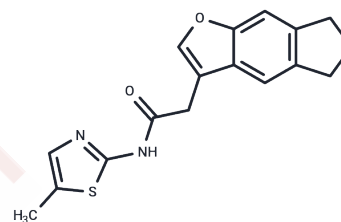
Formula: C₁₇H₁₆N₂O₂S

Molecular Weight: 312.39

Store at low temperature

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



Biological Description

Description	NCT02 is a molecular glue degrader targeting CDK12 and CCNK (cyclin K), inducing CCNK ubiquitination and inhibiting CRC cell proliferation in vivo and in vitro, leading to apoptosis and cell cycle arrest. It is intended for the investigation of metastatic colorectal cancer (CRC).
Targets(IC50)	Others,CDK,Molecular Glues
In vitro	NCT02 (0-20 μM, 72 hours) exhibited low cytotoxicity toward normal fibroblasts but showed dose-dependent inhibition of cell viability in colorectal cancer cell lines (TSC03, TSC08, TSC47, etc.) [1]. NCT02 (10 μM, 24-48 hours) induced apoptosis in TSC03 and TSC14 cells, as evidenced by a significant increase in the proportion of cleaved PARP-positive cells [1]. NCT02 (10 μM, 6 hours) triggered degradation of the CCNK/CDK12 complex, leading to a marked reduction in CCNK protein levels and decreased phosphorylation of p-Ser2 POLR2 [1].

Solubility Information

Solubility	DMSO: 40 mg/mL (128.05 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.2011 mL	16.0056 mL	32.0113 mL
5 mM	0.6402 mL	3.2011 mL	6.4023 mL
10 mM	0.3201 mL	1.6006 mL	3.2011 mL
50 mM	0.064 mL	0.3201 mL	0.6402 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Dieter SM, et al. Degradation of CCNK/CDK12 is a druggable vulnerability of colorectal cancer. *Cell Rep.* 2021;36(3):109394.

Lei P, et al. Current progress and novel strategies that target CDK12 for drug discovery. *Eur J Med Chem.* 2022 Oct 5;240:114603.

Weagel E G, et al. Molecular glues: enhanced protein-protein interactions and cell proteome editing. *Medicinal Chemistry Research*, 2022, 31(7): 1068-1087.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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