

Product Data Sheet

Product Name: CC-671
Cat. No.: GC19089

Chemical Properties

Cas. No. 1618658-88-0

SMILES O=C(NC)C1=CC=C(NC2=NC(NC=C3C4=CC(OC(C)=N5)=C5C=C4)=C3C(OC6CCCC6)=N2)C(OC)=C1

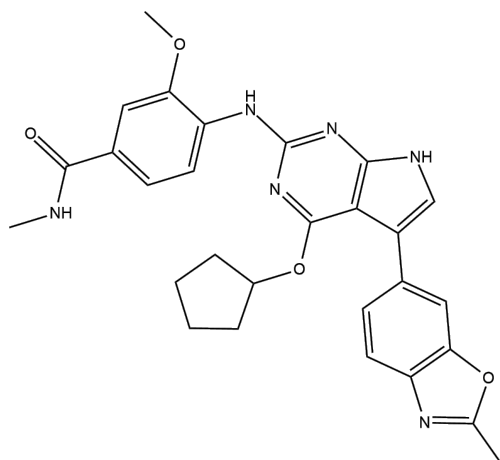
Formula C28H28N6O4 M.Wt 512.56

Solubility DMSO : ≥ 60 mg/mL (117.06 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



Protocol

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

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Address: 10292 Central Ave. #205, Montclair, CA, USA

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Kinase experiment: The kinase selectivity profile of CC-671 (compound 23) is assessed. The screen is conducted with the concentration of CC-671 held constant at 3 μ M. The TTK binding affinity is measured using the kinase binding assays. The kinase binding assays are based on the binding and displacement of a proprietary, Alexa Fluor 647-labeled, ATP-competitive kinase inhibitor scaffold[1].

Animal experiment: Female SCID mice are inoculated subcutaneously with 5×10^6 Cal-51 cells. Mice with tumors of approximately 125 mm³ are randomized and treated intravenously at various doses and schedules of CC-671 (compound 23) (n=8 to 10/group). Tumors are measured twice a week for the duration of the study. The long and short axes of each tumor are measured using a digital caliper in millimeters and the tumor volumes are calculated[1].

References:

[1]. Riggs JR, et al. The Discovery of a Dual TTK Protein Kinase/CDC2-Like Kinase (CLK2) Inhibitor for the Treatment of Triple Negative Breast Cancer Initiated from a Phenotypic Screen. J Med Chem. 2017 Nov 9;60(21):8989-9002.

Background

CC-671 is a dual TTK protein kinase/CDC2-like kinase (CLK2) inhibitor with IC₅₀s of 0.005 and 0.006 μ M for TTK and CLK2, respectively.

CC-671 (compound 23) is a dual TTK protein kinase/CDC2-like kinase (CLK2) inhibitor with IC₅₀s of 0.005 and 0.006 μ M for TTK and CLK2, respectively. HCT-116 cell lysates treated with CC-671 at 3 μ M for 1 h demonstrates that only four kinases show cellular binding of 75% or more including CLK2, CAMKK2, PIP4K22, and JNK[1].

CC-671 (compound 23) demonstrates significant tumor growth inhibition (TGI) ((vehicle - treated/vehicle) $\times 100\%$) of 71% at both 10 and 20 mg/kg on a every 3 days (q3d) dosing schedule. The body weight loss (BWL) in the CC-671 treated group (20 mg/kg) is higher than in the 10 mg/kg group (17% vs 5%)[1].

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