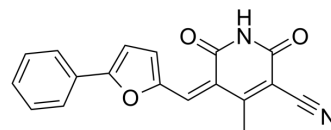


ZINC05007751

Cat. No.:	HY-122639
CAS No.:	591239-68-8
Molecular Formula:	C ₁₈ H ₁₂ N ₂ O ₃
Molecular Weight:	304.3
Target:	Others
Pathway:	Others
Storage:	4°C, protect from light

* The compound is unstable in solutions, freshly prepared is recommended.



SOLVENT & SOLUBILITY

In Vitro

DMSO : 8.33 mg/mL (27.37 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	3.2862 mL	16.4312 mL	32.8623 mL
	5 mM	0.6572 mL	3.2862 mL	6.5725 mL
	10 mM	0.3286 mL	1.6431 mL	3.2862 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

ZINC05007751 is a potent NIMA-related kinase NEK6 inhibitor with an IC₅₀ of 3.4 μM. ZINC05007751 shows antiproliferative activity against a panel of human cancer cell lines, and displays a synergistic effect with Cisplatin and Paclitaxel in a BRCA2 mutated ovarian cancer cell line. ZINC05007751 is very selective against NEK1 and NEK6 with no significant activity was observed against NEK2, NEK7, and NEK9^[1].

In Vitro

ZINC05007751 (6 μM-190 μM; 24 hours) inhibits the growth of MDA-MB-231, PEO1, NCI-H1299 and HCT-15 with IC₅₀ below 100 μM^[1].
 ZINC05007751 induces perturbation of PEO1 cell cycle^[1].
 ZINC05007751 (ovarian cancer cells PEO1) shows synergism with Cisplatin, resulting in a significant reduction of Cisplatin IC₅₀ from 7.9 to 0.1 μM, with combination ZINC05007751 (44 μM) + Cisplatin (10 μM) exhibiting the greatest synergistic effect ^[1].
 MCE has not independently confirmed the accuracy of these methods. They are for reference only.
 Cell Cytotoxicity Assay^[1]

Cell Line:	MDA-MB-231, PEO1, NCI-H1299 and HCT-15 cells
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Concentration:	6 μ M-190 μ M
Incubation Time:	24 hours
Result:	Inhibited the growth of MDA-MB-231, PEO1, NCI-H1299 and HCT-15.

CUSTOMER VALIDATION

- Antiviral Res. 2023 Nov 20:105761.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. De Donato M, et al. Identification and antitumor activity of a novel inhibitor of the NIMA-related kinase NEK6. Sci Rep. 2018;8(1):16047. Published 2018 Oct 30.

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

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