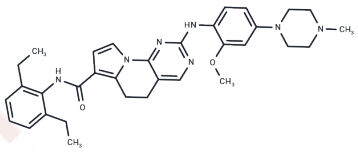
Data Sheet (Cat.No.T28216)

TargetMol

NTRC 0066-0

Chemical Properties



CAS No. : 1817791-73-3

Formula: C33H39N7O2

Molecular Weight: 565.71

Storage: Store at low temperature
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	NTRC 0066-0 is an orally available, selective and potent inhibitor of threonine tyrosine kinase (TTK) that inhibits phosphorylation of TTK substrates and induces chromosome missegregation in cell lines and mice for cancer research.
Targets(IC50)	Others,Kinesin,Tyrosine Kinases
In vitro	**METHODS**: To determine the potential relationship between aneuploidy, CIN, and sensitivity to TTK inhibitors, three cell lines that were relatively sensitive to NTRC 0066-0 and three less sensitive cell lines (colon cancer cell line HCT 116, colorectal adenocarcinoma cell line LoVo, and glioblastoma cell line A-172; cervical cancer cell line DoTc2 4520, osteosarcoma cell line MG-63, and ovarian adenocarcinoma cell line OVCAR-3 were selected in a broad cell panel screen and cell proliferation was measured. **RESULTS**: Colon cancer cell line HCT 116, colorectal adenocarcinoma cell line LoVo, and glioblastoma cell line A-172 were relatively sensitive to NTRC 0066-0, with IC50 values of 37 nM, 40 nM, and 51 nM, respectively. Cervical cancer cell line DoTc2 4520, osteosarcoma cell line MG-63, and ovarian adenocarcinoma cell line OVCAR-3 were less sensitive, with IC50 values of 117 nM, 135 nM, and 872 nM, respectively. [2]

Solubility Information

Solubility	DMSO: 15 mg/mL (26.52 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.7677 mL	8.8385 mL	17.6769 mL
5 mM	0.3535 mL	1.7677 mL	3.5354 mL
10 mM	0.1768 mL	0.8838 mL	1.7677 mL
50 mM	0.0354 mL	0.1768 mL	0.3535 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

Uitdehaag JCM, et al. Target Residence Time-Guided Optimization on TTK Kinase Results in Inhibitors with Potent Anti-Proliferative Activity. J Mol Biol. 2017 Jul 7;429(14):2211-2230.

Libouban MAA,et al. Stable aneuploid tumors cells are more sensitive to TTK inhibition than chromosomally unstable cell lines. Oncotarget. 2017 Jun 13;8(24):38309-38325.

Libouban MAA, de Roos JADM, Uitdehaag JCM, Willemsen-Seegers N, Mainardi S, Dylus J, de Man J, Tops B, Meijerink JPP, Storchová Z, Buijsman RC, Medema RH, Zaman GJR. Stable aneuploid tumors cells are more sensitive to TTK inhibition than chromosomally unstable cell lines. Oncotarget. 2017 Jun 13;8(24):38309-38325. doi: 10.18632/oncotarget.16213. PubMed PMID: 28415765; PubMed Central PMCID: PMC5503534.

Maia AR, de Man J, Boon U, Janssen A, Song JY, Omerzu M, Sterrenburg JG, Prinsen MB, Willemsen-Seegers N, de Roos JA, van Doornmalen AM, Uitdehaag JC, Kops GJ, Jonkers J, Buijsman RC, Zaman GJ, Medema RH. Inhibition of the spindle assembly checkpoint kinase TTK enhances the efficacy of docetaxel in a triple-negative breast cancer model. Ann Oncol. 2015 Oct;26(10):2180-92. doi: 10.1093/annonc/mdv293. Epub 2015 Jul 7. PubMed PMID: 26153498.