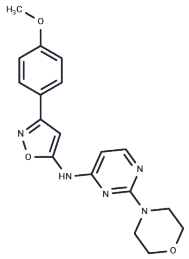
Data Sheet (Cat.No.T8492)

TargetMol

BO-264

Chemical Properties



CAS No. : 2408648-20-2

Formula: C18H19N5O3

Molecular Weight: 353.38

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	BO-264 is a highly potent and orally active inhibitor of transforming acidic coiled-coil 3 (TACC3) with an IC50 of 188 nM and a Kd of 1.5 nM.
Targets(IC50)	Apoptosis,FGFR
In vitro	BO-264 demonstrated superior antiproliferative activity to the two currently reported TACC3 inhibitors, especially in aggressive breast cancer subtypes, basal and HER2+, via spindle assembly checkpoint-dependent mitotic arrest, DNA damage, and apoptosis, while the cytotoxicity against normal breast cells was negligible.?Furthermore, BO-264 significantly decreased centrosomal TACC3 during both mitosis and interphase.?BO-264 displayed potent antiproliferative activity (90% have less than 1 μmol/L GI50 value) in the NCI-60 cell line panel compromising of nine different cancer types.?Noteworthy, BO-264 significantly inhibited the growth of cells harboring FGFR3-TACC3 fusion, an oncogenic driver in diverse malignancies.?Importantly, its oral administration significantly impaired tumor growth in immunocompromised and immunocompetent breast and colon cancer mouse models, and increased survival without any major toxicity.?Finally, TACC3 expression has been identified as strong independent prognostic factor in breast cancer and strongly prognostic in several different cancers.

Solubility Information

Solubility	DMSO: 50 mg/mL (141.49 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (5.66 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.8298 mL	14.1491 mL	28.2981 mL
5 mM	0.566 mL	2.8298 mL	5.6596 mL
10 mM	0.283 mL	1.4149 mL	2.8298 mL
50 mM	0.0566 mL	0.283 mL	0.566 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

Akbulut O, et al. A Highly Potent TACC3 Inhibitor as a Novel Anti-cancer Drug Candidate. Mol Cancer Ther. 2020 Mar 26. pii: molcanther.0957.2019.