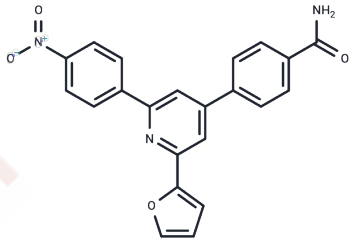
Data Sheet (Cat.No.T15665)

TargetMol

KJ Pyr 9

Chemical Properties



CAS No. : 581073-80-5

Formula: C22H15N3O4

Molecular Weight: 385.37

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	KJ Pyr 9 is an MYC inhibitor (Kd: 6.5 nM in vitro assay).
Targets(IC50)	Autophagy,c-Myc
In vitro	KJ Pyr 9 specifically inhibits MYC-induced oncogenic transformation in cell culture; it has no or only weak effects on the oncogenic activity of several unrelated oncoproteins. KJ Pyr 9 interferes with MYC-MAX complex formation in the cell, as shown in a protein fragment complementation assay. KJ Pyr 9 against three cell lines is tested known to be dependent on increased MYC activity: NCI-H460, MDA-MB-231, and SUM-159PT. KJ Pyr 9 preferentially interferes with the proliferation of MYC-overexpressing human and avian cells and specifically reduces the MYC-driven transcriptional signature. The proliferation of all cell lines tested is inhibited (IC50s: between 5 and 10 μM). The proliferation of Burkitt lymphoma cell lines, which show constitutively high expression of c-MYC, is more sensitive to KJ Pyr 9 (IC50s: between 1 and 2.5 μM).
In vivo	Nude mice receive a xenograft of MDA-MB-231 cells suspended in Matrigel and injected s.c. into the left and right flanks to test the in vivo effectiveness of KJ Pyr 9 (KJ-Pyr-9). The tumor volume in the KJ Pyr 9-treated animals has not increased significantly, by day 31. The tumors are extracted and weighed, at the conclusion of the experiment. When the tumors have reached an average volume of 100 mm3, mice are treated daily with 10 mg/kg KJ Pyr 9 or vehicle control by i.p. injection for 31 d. Inhibition of tumor growth by KJ Pyr 9 is noted after 8 d of treatment. The weight measurements are in agreement with the volume determinations and confirmed the ability of KJ Pyr 9 to halt tumor growth.

Solubility Information

Solubility	DMSO: 250 mg/mL (648.73 mM),Sonication is recommended. H2O: < 0.1 mg/mL (insoluble), (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 10 mg/mL (25.95 mM),Suspension. 10% DMSO+90% Saline: < 10 mg/mL (25.95 mM),Lower concentrations may be soluble, but exact solubility limit is unknown. 10% DMSO+90% Corn Oil: 3.3 mg/mL (8.56 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one.*

In vivo Formulation	*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	2.5949 mL	12.9745 mL	25.9491 mL
5 mM	0.519 mL	2.5949 mL	5.1898 mL
10 mM	0.2595 mL	1.2975 mL	2.5949 mL
50 mM	0.0519 mL	0.2595 mL	0.519 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

Hart JR, et al. Inhibitor of MYC identified in a Kr?hnke pyridine library. Proc Natl Acad Sci U S A. 2014 Aug 26;111 (34):12556-61.