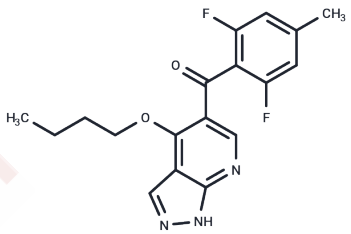
Data Sheet (Cat.No.T2679)

TargetMol

BMS-265246

Chemical Properties



CAS No. : 582315-72-8

Formula: C18H17F2N3O2

Molecular Weight: 345.34

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	BMS-265246 is a potent and selective CDK1/2 inhibitor. Its chemical name is (4-[R-(2,3-Dihydro-benzo[1,4]dioxin-6-yl)-1H-indol-1-yl]-1H-pyrazolo[3,4-d] pyrimidine-6-amine), and it functions by targeting CDK1 and CDK2 to potentially disrupt cell cycle progression.
Targets(IC50)	CDK
Kinase Assay	CDK1/Cyclin B1 Kinase Assay: Kinase reactions consists of 100 ng of baculovirus expressed GST-CDK1/cyclin B1 complex, 1 μg histone H1, 0.2 μCi 33P γ-ATP, 25 μM ATP in 50 μL of kinase buffer (50 mM Tris, pH 8.0, 10 mM MgCl2, 1 mM EGTA, 0.5 mM DTT). Reactions are incubated for 45 min at 30 °C and stopped by the addition of cold trichloroacetic acid (TCA) to a final concentration of 15%. TCA precipitates are collected onto GF/C unifilter plates using a Filtermate universal harvester, and the filters are quantitated using a TopCount 96 well liquid scintillation counter. Dose response curves are generated to determine the concentration required to inhibit 50% of kinase activity (IC50). BMS265246 is dissolved at 10 mM in DMSO and evaluated at six concentrations, each in triplicate. The final concentration of DMSO in the assay equals 2%. IC50 values are derived by nonlinear regression analysis and have a coefficient of variance (SD/mean, n = 6) = 16%.
Cell Research	HCT-116 cells are plated onto 96-well dishes. For each well, the cell density is calculated by counting the number of objects (cells) per field of view, and averaging across all fields for a given well. For a treatment compound, cell density is converted to a percentage relative to the plate-averaged cell density from DMSO treatment (i.e., 100% corresponds to the average cell density for DMSO treatment). Logistic regression curve fits are done using TIBCO Spotfire, and the concentration at which the curve crosses 50% is reported as the EC50 of BMS-265246.(Only for Reference)

Solubility Information

Solubility	Ethanol: < 1 mg/mL (insoluble or slightly soluble), DMSO: 13.33 mg/mL (38.6 mM),Sonication is recommended. H2O: < 1 mg/mL (insoluble or slightly soluble), (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.8957 mL	14.4785 mL	28.957 mL
5 mM	0.5791 mL	2.8957 mL	5.7914 mL
10 mM	0.2896 mL	1.4478 mL	2.8957 mL
50 mM	0.0579 mL	0.2896 mL	0.5791 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.

Reference

Misra RN, et al. Bioorg Med Chem Lett. 2003, 13(14), 2405-2408.
Jiang L, Yu Y, Li Z, et al.BMS-265246, a Cyclin-Dependent Kinase Inhibitor, Inhibits the Infection of Herpes Simplex Virus Type 1.Viruses.2023, 15(8): 1642.
Sutherland JJ, et al. Mol Cancer Ther. 2011, 10(2), 242-254.