Palbociclib-d_8

Cat. No.: HY-50767S

CAS No.: 1628752-83-9

Molecular Formula: $C_{24}H_{21}D_8N_7O_2$

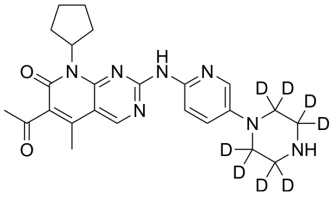
Molecular Weight: 455.58

Target: CDK

Pathway: Cell Cycle/DNA Damage

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

H_2O : 8.33 mg/mL (18.28 mM; ultrasonic and warming and adjust pH to 3 with HCl and heat to 80°C)
DMSO : 1 mg/mL (2.20 mM; ultrasonic and warming and heat to 60°C)
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Preparing Stock Solutions

Mass / Solvent / Concentration	1 mg	5 mg	10 mg
1 mM	2.1950 mL	10.9750 mL	21.9500 mL
5 mM	0.4390 mL	2.1950 mL	4.3900 mL
10 mM	0.2195 mL	1.0975 mL	2.1950 mL

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

BIOLOGICAL ACTIVITY

Description

Palbociclib-d_8 is a deuterium labeled Palbociclib. Palbociclib is a selective and orally active CDK4 and CDK6 inhibitor with IC50s of 11 and 16 nM, respectively. Palbociclib has the potential for ER-positive and HER2-negative breast cancer research[1].

IC_{50} & Target

Cdk4/cyclin D3 9 nM (IC_{50})	Cdk4/cyclin D1 11 nM (IC_{50})	Cdk6/cyclin D2 16 nM (IC_{50})	DYRK1A 2000 nM (IC_{50})
MAPK 8000 nM (IC_{50})			

REFERENCES

[1]. Fry DW, et al. Specific inhibition of cyclin-dependent kinase 4/6 by PD 0332991 and associated antitumor activity in human tumor xenografts. Mol Cancer Ther. 2004 Nov;3(11):1427-38.

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