

MK-3697

Chemical Properties

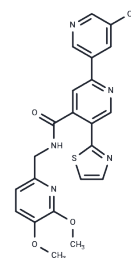
CAS No. : 1224846-01-8

Formula: C₂₃H₂₁N₅O₃S

Molecular Weight: 447.51

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	MK-3697, an isonicotinamide small molecule, acts as a potent and selective Orexin 2 receptor antagonist (K _i : 0.95 nM).
Targets(IC ₅₀)	OX Receptor
Kinase Assay	Cyclin/CDK kinase assay: Recombinant cyclin/CDK holoenzymes are purified from Sf9 cells engineered to produce baculoviruses that express a specific cyclin or CDK. Cyclin/CDK complexes are typically diluted to a final concentration of 50 µg/mL in a kinase reaction buffer containing 50 mM Tris-HCl (pH 8.0), 10 mM MgCl ₂ , 1 mM DTT, and 0.1 mM sodium orthovanadate. For each kinase reaction, 1 µg of enzyme and 20 µL of a 2-µM substrate solution (a biotinylated peptide derived from histone H1) are mixed and combined with 10 µL of diluted Dinaciclib. The reaction is started by the addition of 50 µL of 2 µM ATP and 0.1 µCi of 33P-ATP. Kinase reactions are incubated for 1 hour at room temperature and are stopped by the addition of 0.1% Triton X-100, 1 mM ATP, 5 mM EDTA, and 5 mg/mL streptavidin-coated SPA beads. SPA beads are captured using a 96-well GF/B filter plate and a Filtermate universal harvester. Beads are washed twice with 2 M NaCl and twice with 2 M NaCl containing 1% phosphoric acid. The signal is then assayed using a TopCount 96-well liquid scintillation counter.

Solubility Information

Solubility	DMSO: 55 mg/mL (122.9 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.2346 mL	11.1729 mL	22.3459 mL
5 mM	0.4469 mL	2.2346 mL	4.4692 mL
10 mM	0.2235 mL	1.1173 mL	2.2346 mL
50 mM	0.0447 mL	0.2235 mL	0.4469 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

Anthony J. Roecker, et al. Bioorganic & Medicinal Chemistry Letters Available online 26 August 2014.

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