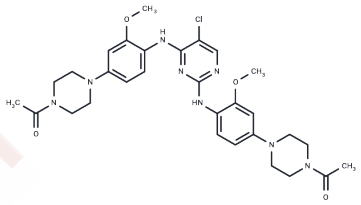
Data Sheet (Cat.No.T2641)

KRCA-0008

Chemical Properties



CAS No. : 1472795-20-2

Formula: C30H37ClN8O4

Molecular Weight: 609.12

Appearance: no data available

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

Biological Description

Description	KRCA-0008 is an effective and specific ALK/Ack1 inhibitor (IC50: 12/4 nM); displays drug-like properties without hERG liability.
Targets(IC50)	ACK1,ALK
Kinase Assay	Assay of Abl1 kinase isoforms and determination of inhibitor potency: Activity of u-Abl1native is determined by following the production of ADP from the kinase reaction through coupling with the pyruvate kinase/lactate dehydrogenase system. In this assay, the oxidation of NADH (measured as a decreased A340 nM) is continuously monitored spectrophotometrically. The final reaction mixture (100 µL, in a 384-well Corning plate) is prepared as follows: An Abl1 kinase/coupled assay components mixture is prepared containing u-Abl1 kinase (1 nM), Abltide (EAIYAAPFAKKK, 0.2 mM), MgCl2 (9 mM), pyruvate kinase (~ 4 units), lactate dehydrogenase (~ 0.7 units), phosphoenol pyruvate (1 mM), and NADH (0.28 mM) in 90 mM Tris containing 0.1 % octyl-glucoside and 1 % DMSO, pH 7.5. Separately, an inhibitor mixture is prepared containing DCC-2036 serially diluted 3-fold in DMSO followed by dilution into buffer composed of 180 mM Tris, pH 7.5, containing MgCl2 (18 mM) and 0.2 % octyl-glucoside. Fifty µL of the inhibitor mixture is mixed with 50 µL of the above Abl1 kinase/coupled assay components mixture, which is then incubated at 30 °C for 2 hours before 2 µL of 25 mM ATP (500 µM, final) is added to start the reaction. The reaction is recorded every 2 minutes for 2.5 hours at 30 °C on a Polarstar Optima or Synergy2 plate reader. Reaction rate (slope) is calculated using the 1 to 2 hour time frame with reader's software. Percent inhibition is obtained by comparison of reaction rate with that of a DMSO control. IC50 values are calculated from a series of percent inhibition values determined at a range of inhibitor concentrations using GraphPad Prism. The kinase assay for Abl1T315I, p-Abl1native or Abl1H396P is assayed the same as above except that 2.2 nM Abl1T315I, 1 nM p-Abl1 native or 1.3 nM Abl1H396P is used. The above assay format is also used for kinases other than Abl1 with the exception of TIE2, for which a fluorescence polarization/Transcreener format is used.The assay conditions are the same as described above except that PolyE4Y (final 1 mg/mL) is used as the substrate and one hour preincubation is used.

Solubility Information

Solubility	DMSO: 12 mg/mL (19.7 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.6417 mL	8.2086 mL	16.4171 mL
5 mM	0.3283 mL	1.6417 mL	3.2834 mL
10 mM	0.1642 mL	0.8209 mL	1.6417 mL
50 mM	0.0328 mL	0.1642 mL	0.3283 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

Park CH, et al. Bioorg Med Chem Lett. 2013 Nov 15;23(22):6192-6.