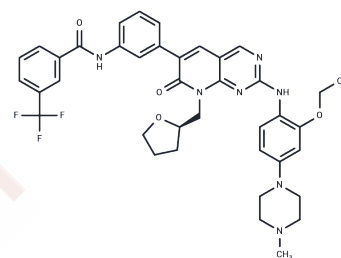


Ack1 inhibitor 1

Chemical Properties

CAS No. :	2924415-92-7
Formula:	C39H40F3N7O4
Molecular Weight:	727.77
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	Ack1 inhibitor 1 is a potent and selective orally active inhibitor of ACK1 kinase, with an IC50 value of 2.1 nM. It effectively inhibits the phosphorylation of ACK1 and the activation of downstream AKT, demonstrating anti-tumor activity [1].
Targets(IC50)	Akt,ACK1
In vitro	Ack1 inhibitor 1 (Compound 10zi) demonstrates inhibitory effects in 67R and H1975 cell lines with IC50 values of 3.71 μ M and 4.18 μ M, respectively [1]. When used alone or in combination with ASK120067 (0 nM-5000 nM, 72 h), Ack1 inhibitor 1 enhances the antitumor activity in 67R cells [1]. Furthermore, a dose-dependent inhibition of phosphorylation of ACK1 and AKT is observed in 67R cells treated with Ack1 inhibitor 1 at concentrations of 1 μ M and 5 μ M over 6 h [1]. Cell viability assays [1] in the 67R cell line, a derivative of the H1975 cells resistant to ASK120067, showed a pronounced synergistic anti-growth effect when used in conjunction with ASK120067, achieving a synergy score of 10.83. Protein blot analysis [1] in 67R cells at 1 μ M and 5 μ M for 6 h, with or without EGF stimulation for 30 minutes, revealed moderate reduction in p-ACK1 and p-AKT at 1 μ M and more significant suppression of p-AKT at 5 μ M, although complete inhibition of p-ACK1 was not achieved.
In vivo	When administered orally at a single dose of 10 mg/kg in SD rats, Ack1 inhibitor 1 (Compound 10zi) achieves an AUC of 1920.56 h•ng/mL, a C _{max} of 119.52 μ g/L, and a bioavailability rate of 19.80%.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.3741 mL	6.8703 mL	13.7406 mL
5 mM	0.2748 mL	1.3741 mL	2.7481 mL
10 mM	0.1374 mL	0.687 mL	1.3741 mL
50 mM	0.0275 mL	0.1374 mL	0.2748 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.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

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