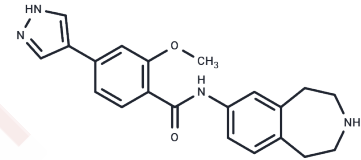


JNJ-47117096

Chemical Properties

CAS No. : 1610586-62-3
 Formula: C₂₁H₂₂N₄O₂
 Molecular Weight: 362.425
 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	JNJ-47117096 is a potent and selective MELK inhibitor with an IC ₅₀ of 23 nM, and it also exhibits strong activity against Flt3 with an IC ₅₀ of 18 nM.
Targets(IC ₅₀)	FLT,MELK
In vitro	JNJ-47117096 is a potent and selective inhibitor of MELK, with an IC ₅₀ of 23 nM. It also effectively inhibits Flt3 with an IC ₅₀ of 18 nM, and weakly blocks CAMKIIδ, Mnk2, CAMKIIγ, and MLCK, with IC ₅₀ values of 810 nM, 760 nM, 1000 nM, and 1000 nM, respectively. JNJ-47117096 (MELK-T1) suppresses the proliferation of Flt3-driven Ba/F3 cell lines in the absence of IL-3, with an IC ₅₀ of 1.5 μM, but shows no inhibitory activity in the presence of IL-3. It does not inhibit the proliferation of Ba/F3 cell lines transfected with FGFR1, FGFR3, or KDR, regardless of IL-3 presence [1]. At a concentration of 10 μM, JNJ-47117096 delays the entry of MCF-7 cells into the S phase. By inhibiting MELK, JNJ-47117096 causes replication fork stalling and DNA double-strand breaks (DSB) and activates the ATM-mediated DNA damage response (DDR). At concentrations of 3 and 10 μM, it induces growth arrest and a senescent phenotype while strongly phosphorylating p53, upregulating p21 over the long term, and downregulating FOXM1 target genes [2].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.7592 mL	13.7958 mL	27.5915 mL
5 mM	0.5518 mL	2.7592 mL	5.5183 mL
10 mM	0.2759 mL	1.3796 mL	2.7592 mL
50 mM	0.0552 mL	0.2759 mL	0.5518 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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