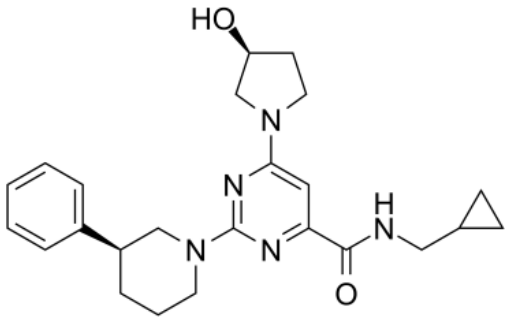
Product Data Sheet

Product Name: LEI-401
Cat. No.: GC60982

Chemical Properties

Cas. No.	2393840-15-6		
SMILES	O=C(C1=NC(N2C[C@H](C3=CC=CC=C3)CCC2)=NC(N4C[C@@H](O)CC4)=C1)NCC5CC5		
Formula	$C_{24}H_{31}N_5O_2$	M.Wt	421.54
Solubility	DMSO: 100 mg/mL (237.23 mM)	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20°C for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		

Structure



Background

LEI-401 is a first-in-class, selective, and CNS-active NAPE-PLD (N-acylphosphatidylethanolamine phospholipase D) inhibitor, with an IC50 of 27 nM. LEI-401 modulates emotional behavior in mice[1].

LEI-401 reduced a broad range of NAEs including anandamide in neuronal cells in a NAPE-PLD-dependent manner. LEI-401 (0.04-20 μM; 30 minutes) dose-dependently reduces the labeling of NAPE-PLD with an IC50 of 0.86 μM in hNAPE-PLD-transfected HEK293T cells. LEI-401 reduces

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NAE levels in Neuro-2a cells, but not in NAPE-PLD KO cells[1].

LEI-401 (30 mg/kg; i.p.) diminishes fear extinction in mice[1].LEI-401 also activates HPA axis signaling[1].LEI-401 (10 mg/kg; p.o.) treatment shows the t1/2, Cmax, tmax, AUClast, and F values of 2.5 hours, 1370 ng/mL, 2 hours, 6760 h*ng/mL, and 25%, respectively[1].LEI-401 (30 mg/kg; i.p.) treatment show the Cmax, tmax, AUClast, and F values of 10300 ng/mL, 1 hour, 38600 h*ng/mL, and 48%, respectively[1]. Animal Model: Male 7-12-week-old C57BL/6J mice[1]

[1]. Mock ED, et al. Discovery of a NAPE-PLD inhibitor that modulates emotional behavior in mice. Nat Chem Biol. 2020;16(6):667-675.

Caution: Product has not been fully validated for medical applications. For research use only.
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