Data Sheet (Cat.No.T71863)

TargetMol

LDDN-0003499

Chemical Properties

CAS No. :	331662-51-2
Formula:	C16H13Cl2N3O2
Molecular Weight:	350.20
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	LDDN-0003499 is a Src family tyrosine kinase inhibitor and anti-inflammatory agent. LDDN-0003499 reduces basal and Aβ-stimulated levels of active phosphorylated Lyn and Src kinases and attenuates Aβ-stimulated secretion of pro-inflammatory cytokines TNFα and IL-6 in microglial cells. LDDN-0003499 is utilized in neuroscience and neuroinflammation research focused on Alzheimer's disease-associated microglial activation, Src-family kinase signaling modulation, and amyloid-β-induced inflammatory pathway regulation.
Targets(IC50)	IL Receptor,TNF
In vitro	Methods: Mouse microglial BV2 cells were treated with LDDN-0003499 at concentrations ranging from 0.5 nM to 50 μM for different durations. Cell cytotoxicity, cellular phosphotyrosine level, phosphorylation levels of Lyn and Src, and secretion of inflammatory factors were detected. In addition, human and mouse liver microsomes were used to assess its metabolic clearance characteristics. Results: 1.LDDN-0003499 showed no cytotoxicity to BV2 cells after 24-hour treatment at concentrations of 0.5 nM to 50 μM. 2.After 1-hour treatment, LDDN-0003499 reduced the total cellular phosphotyrosine level and inhibited the basal phosphorylation of Lyn and Src in a dose-dependent manner. 3.After 65-minute treatment, LDDN-0003499 dose-dependently blocked the Aβ-induced upregulation of Lyn and Src phosphorylation. 4.One-hour treatment with LDDN-0003499 decreased the secretion of TNF-α and IL-6 triggered by Aβ stimulation in a dose-dependent manner. 5.At the concentration of 1 μM, LDDN-0003499 presented moderately high NADPH-dependent clearance and low non-NADPH-dependent clearance in both human and mouse liver microsomes [1].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.8555 mL	14.2776 mL	28.5551 mL
5 mM	0.5711 mL	2.8555 mL	5.711 mL
10 mM	0.2856 mL	1.4278 mL	2.8555 mL
50 mM	0.0571 mL	0.2856 mL	0.5711 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

Manocha GD, et al. Characterization of Novel Src Family Kinase Inhibitors to Attenuate Microgliosis. PLoS One. 2015;10(7):e0132604. Published 2015 Jul 10.