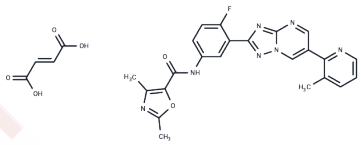
Data Sheet (Cat.No.T39214L)

TargetMol

LXE408 fumarate

Chemical Properties



CAS No. :

Formula: C27H22FN7O6

Molecular Weight: 559.51

Storage: Store at low temperature
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	LXE408 fumarate is an orally active, non-competitive and kinetoplastid-selective proteasome inhibitor. LXE408 fumarate has an IC50 of 0.04 μM for L. donovani proteasome and an EC50 of 0.04 μM for L. donovani. LXE408 fumarate has a low propensity to cross the blood brain barrier. LXE408 fumarate has the potential for visceral leishmaniasis (VL) research.
Targets(IC50)	Proteasome
In vitro	LXE408 fumarate occupy the pocket as a ternary complex with the proteasome. In a manual patch clamp assay, LXE408 fumarate shows no inhibition of the hERG channel (IC50>30 μM). LXE408 fumarate has a low propensity to cross the blood brain barrier (brain/plasma AUC ratio=0.03 in mice)[1].
In vivo	LXE408 fumarate (0.3-10 mg/kg; PO; twice daily for 8 days) potently reduces the parasite burden in the liver in a dose-dependent manner. LXE408 fumarate (1, 3, 10, 20 mg/kg; p.o.; b.i.d.; for 10 days) effects robust healing of parasite-induced skin lesions at the base of the tail in BALB/c mice infected with L. major. LXE408 fumarate (5 mg/kg IV and 20 mg/kg PO) has a T1/2 of 3.3 hours for mouse. LXE408 fumarate (3 mg/kg IV and 10 mg/kg PO) has a T1/2 of 3.8 hours, a CL of 2.1 mL/min•kg, and a Vss of 0.53 L/kg for male Sprague-Dawley rat. LXE408 fumarate (0.3 mg/kg IV and 1.0 mg/kg PO) has a T1/2 of 3.8 hours for male beagle dog. LXE408 fumarate (0.3 mg/kg IV and 10 mg/kg PO) has a T1/2 of 9.7 hours for male cynomolgus monkey[1].

Solubility Information

Solubility	DMSO: 5.6 mg/mL (10.01 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.7873 mL	8.9364 mL	17.8728 mL
5 mM	0.3575 mL	1.7873 mL	3.5746 mL
10 mM	0.1787 mL	0.8936 mL	1.7873 mL
50 mM	0.0357 mL	0.1787 mL	0.3575 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

Advait Nagle, et al. Discovery and Characterization of Clinical Candidate LXE408 as a Kinetoplastid-Selective Proteasome Inhibitor for the Treatment of Leishmaniases. J Med Chem. 2020 Jul 15.