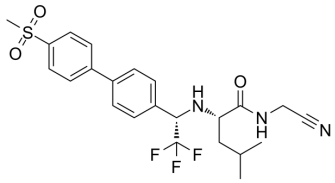
L-873724

Cat. No.:	HY-50887
CAS No.:	603139-12-4
Molecular Formula:	$C_{23}H_{26}F_3N_3O_3S$
Molecular Weight:	481.53
Target:	Cathepsin
Pathway:	Metabolic Enzyme/Protease
Storage:	4°C, sealed storage, away from moisture and light * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (207.67 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.0767 mL	10.3836 mL	20.7671 mL
5 mM	0.4153 mL	2.0767 mL	4.1534 mL
10 mM	0.2077 mL	1.0384 mL	2.0767 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (5.19 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (5.19 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (5.19 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

L-873724 is a potent, orally bioavailable, selective and reversible[2] non-basic cathepsin K inhibitor, with IC_{50}s of 0.2, 178, 264, and 5239 nM for cathepsin K, cathepsin S, cathepsin L, cathepsin B, respectively[1]. L-873724 also exhibits an IC_{50} of 0.5 nM for rabbit cathepsin K. L-873724 inhibits bone resorption[2].

IC_{50} & Target

IC50: 0.2 nM (Cathepsin K), 178 nM (Cathepsin S), 264 nM (Cathepsin B), 5239 nM (Cathepsin B)[1], 0.5 nM (Rabbit cathepsin K)[2]

In Vitro

L-873724 (Compound 22) is a potent and selective non-basic cathepsin K inhibitor, with IC_{50}s of 0.2, 178, 264, and 5239 nM for cathepsin K, cathepsin S, cathepsin L, cathepsin B, respectively. L-873724 also shows IC_{50}s of 95, 1221 and 4807 nM for

	Ramos cathepsin S, Hep G2 cathepsin L, Hep G2 cathepsin B[1]. L-873724 exhibits an IC_{50} of 0.5 nM for rabbit cathepsin K[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	L-873724 is orally bioavailable, non-lysosomotropic, and efficacious in the rhesus monkey bone resorption model[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Li CS, et al. Identification of a potent and selective non-basic cathepsin K inhibitor. Bioorg Med Chem Lett. 2006 Apr 1;16(7):1985-9.

[2]. Zhuo Y, et al. Inhibition of bone resorption by the cathepsin K inhibitor odanacatib is fully reversible. Bone. 2014 Oct;67:269-80.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA