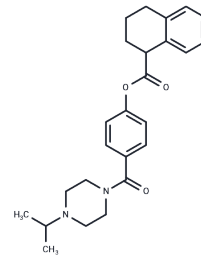


FK-448 Free base

Chemical Properties

CAS No. :	85858-76-0
Formula:	C ₂₅ H ₃₀ N ₂ O ₃
Molecular Weight:	406.52
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	FK-448 Free base is a potent and specific chymotrypsin inhibitor, with an IC ₅₀ of 720 nM.
Targets(IC ₅₀)	Others, Proteasome
In vitro	FK-448 Free base slightly inhibits esterolysis of Trypsin and Thrombin, with IC ₅₀ s of 780 and 35 μM, respectively, but shows no effects on esterolysis of plasmin, plasma kallikrein or pancreas kallikrein, with IC ₅₀ s of all >1 mM. FK-448 moderately inhibits hydrolytic activities of cathepsin G with an IC ₅₀ of 15 μM. FK-448 Free base is an effective and specific inhibitor of chymotrypsin, with an IC ₅₀ of 720 nM.
In vivo	FK-448, administered orally (p.o.) at a dose of 20 mg/kg, not only reduces the blood glucose level but also elevates the plasma Insulin Release Inhibitor (IRI) level in dogs. Meanwhile, when delivered intraperitoneally (i.p.) at the same dosage, FK-448 leads to a decreased blood glucose level and prevents the breakdown of insulin by pancreatic enzymes in rats.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.4599 mL	12.2995 mL	24.599 mL
5 mM	0.492 mL	2.4599 mL	4.9198 mL
10 mM	0.246 mL	1.230 mL	2.4599 mL
50 mM	0.0492 mL	0.246 mL	0.492 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

Fujii S, et al. New synthetic inhibitors of chymotrypsin. J Biochem. 1984 Feb;95(2):319-22.

Fujii S, et al. Promoting effect of the new chymotrypsin inhibitor FK-448 on the intestinal absorption of insulin in rats and dogs. J Pharm Pharmacol. 1985 Aug;37(8):545-9.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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