

Product Data Sheet

Product Name: LP-856866

Cat. No.: GC81769

Chemical Properties

Cas. No.

Formula $C_{26}H_{26}F_3NO_5S$ M.Wt 521.55

Solubility DMSO: 100 mg/mL (191.74 mM; Need ultrasonic) Storage Store at 4°C, sealed storage, away from moisture

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

LP-856866 is an orally active ACSL5 inhibitor, with IC₅₀ values of 8 nM and 4 nM against mouse and

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human ACSL5, respectively, and IC₅₀ values of 6 nM and 17 nM against mouse and human ACSL1, respectively. LP-856866 induces delayed gastric emptying, promotes GLP-1 release, reduces food intake, decreases body weight and body fat mass, preserves lean body mass, improves glucose homeostasis, enhances insulin sensitivity, reduces hepatic lipid accumulation, and lowers serum triglyceride and total cholesterol levels. LP-856866 is applicable to research on diet-induced obesity [1].

In Vivo, LP-856866 (10-60 mg/kg/day; p.o.; continuous dietary admixture; 28 days) induces dose-dependent body weight and body fat loss with preserved lean body mass, and improves glucose tolerance and insulin sensitivity in male diet-induced obesity mice^[1]. LP-856866 (p.o.; dietary admixture) reduces high-fat diet consumption in wild-type mice but not *Acs15* knockout mice, confirming targeted ACSL5 inhibition^[1]. LP-856866 (75 mg/kg/day; p.o.; continuous dietary admixture; 11 days) shifts dietary preference away from high-fat diet, reduces total caloric intake, and prevents weight gain in male mice given access to both low-fat and high-fat diets^[1]. LP-856866 (60 mg/kg/day; p.o.; continuous dietary admixture; 17 days) reduces hepatic triglyceride levels in male *Mus musculus* fed a high-fat diet^[1]. LP-856866 (60 mg/kg/day; p.o.; continuous dietary admixture; 3 weeks) reduces serum total cholesterol and triglyceride levels in male *Mus musculus* fed a high-fat diet^[1]. LP-856866 (60 mg/kg; p.o.; single pretreatment dose; 30 minutes before HFD meal) increases postprandial active GLP-1 levels in male mice, with a synergistic effect when combined with sitagliptin^[1].

References:

[1]. Powell DR, et al. Acyl-CoA Synthetase 5 Knockout and Inhibitors Protect Against Diet-Induced Obesity in Mice by Activating the Ileal Brake. *J Endocr Soc.* 2025;10(2):bvaf196. Published 2025 Nov 28.

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