
Product Data Sheet

Product Name: Ezetimibe-d4-1

Cat. No.: GC66354

Chemical Properties

Cas. No. 1093659-89-2

Formula $C_{24}H_{17}D_4F_2NO_3$

M.Wt 413.45

Solubility DMSO : 200 mg/mL (483.73 mM; Need ultrasonic); H₂O : 0.1 mg/mL (0.24 mM; ultrasonic and warming and heat to 60°C)Store
Storage at -
20°C

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**

Ezetimibe-d₄ is intended for use as an internal standard for the quantification of ezetimibe by GC- or LC-MS. Ezetimibe inhibits intestinal cholesterol absorption by preventing cholesterol uptake by the Niemann-Pick C1-like 1 (NPC1L1) protein, a cholesterol transporter located in the apical membrane of enterocytes.^{1,2} Upon oral administration ezetimibe undergoes rapid glucuronidation in the intestine where its glucuronide binds NPC1L1.^{1,2} Ezetimibe exhibits ED₅₀ values of 0.0005-0.05 mg/kg in various animal models, selectively blocking cholesterol absorption without inhibiting pancreatic lipolytic enzyme activities in the intestinal lumen, affecting bile acid micelle solubilization of cholesterol, or interfering with the absorption of triglycerides, fatty acids, or bile acids.^{1,3}

1. Wang, D.Q. Regulation of intestinal cholesterol absorption *Annu. Rev. Physiol.* 69:221-248 (2007) 2. Garcia-Calvo, M., Lisnock, J., Bull, H.G., et al. The target of ezetimibe is Niemann-Pick C1-like 1 (NPC1L1) *Proc. Natl. Acad. Sci. USA* 102(23):8132-8137 (2005)

3. Sudhop, T., and von Bergmann, K. Cholesterol absorption inhibitors for the treatment of

Caution: Product has not been fully validated for medical applications. For research use only.

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hypercholesterolaemiaDrugs62(16)2333-2347(2002)

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