

Catalog # 10-2027 Ezetimibe

CAS# 163222-33-1

(3R,4S)-1-(4-Fluorophenyl)-3-[(3S)-3-(4-fluorophenyl)-3-hydroxypropyl]-4-(4-hydroxyphenyl)azetidine-2-one SCH 58235; Ezetrol

Lot # X108773

Inhibits cholesterol absorption in the intestine by preventing cholesterol uptake by the Niemann-Pick C1-like 1 (NPC1L1) protein, a cholesterol transporter. Undergoes rapid glucuronidation in the intestine where its glucuronide binds NPC1L1. Inhibits dengue virus infection in Huh-7 cells by blocking cholesterol transport. Ameliorates steatohepatitis by activation of autophagy and inhibition of NLRP3 inflammasome.

- 1) Wang et al. (2007), Regulation of intestinal cholesterol absorption; Annu. Rev. Physiol., 69 221
- 2) Garcia-Calvo et al. (2005), The target of ezetimibe is Niemann-Pick C1-Like 1 (NPC1L1); Proc. Natl. Acad. Sci. USA, **102** 8132
- 3) Osuna-Ramos et al. (2018), Ezetimibe inhibits dengue virus infection in Huh-7 cells by blocking the cholesterol transporter Niemann-Pick C1-like 1 receptor, Regulat. Curr. Opin. Cell Biol., **160** 151
- 4) Kim et al. (2017), Ezetimibe ameliorates steatohepatitis via AMP activated protein kinase-TFEB-mediated activation of autophagy and NLRP3 inflammasome inhibition; Autophagy, **13** 1767

PHYSICAL DATA

Molecular Weight: 409.43

Molecular Formula: C₂₄H₂₁F₂NO₃

Purity: 98% by TLC

NMR: (Conforms)

Solubility: DMSO (up to 25 mg/ml) or Ethanol (up to 15 mg/ml)

Physical Description: White or off-white solid

Storage and Stability: Store as supplied desiccated at room temperature for up to 2 years from the date of purchase.

Solutions in DMSO or ethanol may be stored at -20°C for up to 3 months.

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