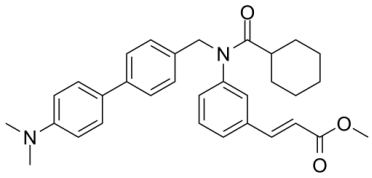
Data Sheet

Product Name:	Fexaramine
Cat. No.:	CS-3884
CAS No.:	574013-66-4
Molecular Formula:	$C_{32}H_{36}N_2O_3$
Molecular Weight:	496.64
Target:	Autophagy; FXR
Pathway:	Autophagy; Metabolic Enzyme/Protease
Solubility:	DMSO : 50 mg/mL (100.68 mM; Need ultrasonic)



BIOLOGICAL ACTIVITY:

Fexaramine is a potent and selective **FXR** agonist with an **EC_{50}** of 25 nM. Fexaramine has no activity against hRXRα, hPPARαγδ, mPXR, hPXR, hLXRα, hTRβ, hRARβ, mCAR, mERRγ, and hVDR receptors[1][2]. **In Vitro:** Bile acid treatment is performed in HuTu-80 cells with Fexaramine (5, 25, and 50 μM) for 24 h. Fexaramine (50 μM) increases small heterodimer partner (SHP) transcript levels by 2.1-fold. The cells are treated with various concentrations of Fexaramine, and the endogenous secretin transcript levels are significantly reduced (33% in 50 μM Fexaramine). Fexaramine treatment also significantly suppresses secretin promoter activity by 32%[1]. **In Vivo:** Fexaramine treatment of DIO mice produces a striking metabolic profile that includes reduced weight gain, decreased inflammation, browning of WAT and increased insulin sensitization[3].

References:

[1]. Lam IP, et al. Bile acids inhibit duodenal secretin expression via orphan nuclear receptor small heterodimer partner (SHP). Am J Physiol Gastrointest Liver Physiol. 2009 Jul;297(1):G90-7.

[2]. Fang S, et al. Intestinal FXR agonism promotes adipose tissue browning and reduces obesity and insulin resistance. Nat Med. 2015 Feb;21(2):159-65.

[3]. Michael Downes, et al. A chemical, genetic, and structural analysis of the nuclear bile acid receptor FXR. Mol Cell. 2003 Apr;11(4):1079-92.

CAIndexNames:

2-Propenoic acid, 3-[3-[(cyclohexylcarbonyl)[[4'-(dimethylamino)[1,1'-biphenyl]-4-yl]methyl]amino]phenyl]-, methyl ester

SMILES:

CN(C)C1=CC=C(C2=CC=C(CN(C3=CC(/C=C/C(OC)=O)=CC=C3)C(C4CCCCC4)=O)C=C2)C=C1

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

Tel: 732-484-9848 Fax: 888-484-5008 E-mail: sales@ChemScene.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA