

Product Data Sheet

Product Name: AMG 837 calcium hydrate

Cat. No.: GC35313

Chemical Properties

Cas. No. 1259389-38-2

SMILES [O-]C(C[C@H](C#CC)C1=CC=C(C=C1)OCC2=CC=CC(C3=CC=C(C(F)(F)F)C=C3)=C2)=O.[0.5Ca2+].O

Formula $C_{26}H_{22}F_3O_4^-$ M.Wt 455.45

Solubility DMSO: ≥ 42 mg/mL (92.22 mM) Storage Store 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

AMG 837 is a partial agonist of free fatty acid receptor 1 (FFAR1/GPR40).¹ It induces calcium mobilization in CHO cells expressing FFAR1/GPR40 but not FFAR2/GPR43, FFAR3/GPR41, or FFAR4/GPR120 (EC_{50} s = 0.0135, >10 , >10 , and >10 μM , respectively).^{1,2} AMG 837 induces insulin secretion in MIN6 pancreatic β -cells and isolated mouse islets (EC_{50} s = 0.0048 and 0.142 μM , respectively).^{1,2} It decreases plasma glucose levels and increases plasma levels of insulin in Zucker *fa/fa* rats when administered at doses of 0.3, 1, and 3 mg/kg.² AMG 837 (100 mg/kg) also decreases plasma glucose and increases plasma insulin levels in a mouse model of diabetes induced by a high-fat diet and streptozotocin.³

1.Houze, J.B., Zhu, L., Sun, Y., et al. AMG 837: A potent, orally bioavailable GPR40 agonist. *Bioorg. Med. Chem. Lett* 22(2):1267-1270(2012) 2.Lin, D.C.-H., Zhang, J., Zhuang, R., et al. AMG 837: A novel GPR40/FFA1 agonist that enhances insulin secretion and lowers glucose levels in rodents. *PLoS One* 6(11):e27270(2011) 3.Luo, J., Swaminath, G.,

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

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Brown, S.P., et al. A potent class of GPR40 full agonists engages the enteroinsular axis to promote glucose control in rodents. *PLoS One* 7(10):e46300 (2012)

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