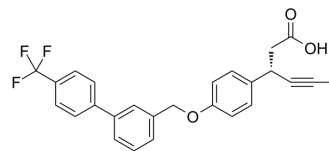


AMG 837

Cat. No.:	HY-13967
CAS No.:	865231-46-5
Molecular Formula:	C ₂₆ H ₂₁ F ₃ O ₃
Molecular Weight:	438.44
Target:	Free Fatty Acid Receptor
Pathway:	GPCR/G Protein
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

AMG 837 is a potent GPR40 agonist (EC₅₀=13 nM) with a superior pharmacokinetic profile and robust glucose-dependent stimulation of insulin secretion in rodents. IC₅₀ value: 13 nM (EC₅₀) [1] Target: GPR40 agonist AMG 837 displayed the expected two-fold increase in potency on GPR4 (EC₅₀ = 13 [±7] nM) compared to the racemic compound and its activity crossed over to the rat and mouse forms of GPR40 (EC₅₀ = 23 and 13 nM, respectively). AMG 837 was found to be a partial agonist on GPR40 with maximal activity 85% of that shown by DHA under our standard assay conditions. AMG 837 is a highly potent stimulator of insulin secretion in MIN6 cells with an EC₅₀ comparable to that seen in the aequorin Ca²⁺-flux assay. AMG 837 showed no significant activity in cell-based assays against PPAR α , δ , and γ . An external panel of 64 receptors also revealed no significant activity with the exception of weak inhibition (IC₅₀ = 3 μ M) on the α 2-adrenergic receptor. Overall, AMG 837 was both highly potent and selective in vitro.

REFERENCES

- [1]. Houze JB, et al. AMG 837: a potent, orally bioavailable GPR40 agonist. *Bioorg Med Chem Lett*. 2012 Jan 15;22(2):1267-70.
- [2]. Lin DC, et al. AMG 837: a novel GPR40/FFA1 agonist that enhances insulin secretion and lowers glucose levels in rodents. *PLoS One*. 2011;6(11):e27270.

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

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