

PRODUCT INFORMATION

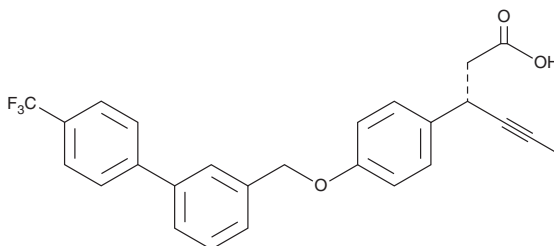


AMG 837

Item No. 21815

CAS Registry No.: 865231-46-5
Formal Name: β S-1-propyn-1-yl-4-[[4'-(trifluoromethyl)[1,1'-biphenyl]-3-yl]methoxy]-benzenepropanoic acid

MF: C₂₆H₂₁F₃O₃
FW: 438.4
Purity: \geq 98%
UV/Vis.: λ_{max} : 253 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: \geq 4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

AMG 837 is supplied as a crystalline solid. A stock solution may be made by dissolving the AMG 837 in the solvent of choice, which should be purged with an inert gas. AMG 837 is soluble in organic solvents such as DMSO and dimethyl formamide (DMF). The solubility of AMG 837 in these solvents is approximately 5 and 10 mg/ml, respectively.

AMG 837 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, AMG 837 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. AMG 837 has a solubility of approximately 0.33 mg/ml in a 1:2 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

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 (EC₅₀s = 0.0135, >10, >10, and >10 μ M, respectively).^{1,2} AMG 837 induces insulin secretion in MIN6 pancreatic β -cells and isolated mouse islets (EC₅₀s = 0.0048 and 0.142 μ M, 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 (STZ; Item No. 13104).³

References

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., 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).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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