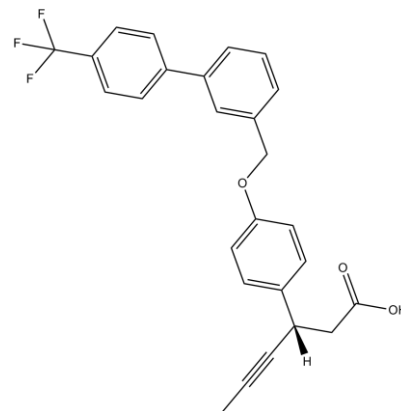


## Product Data Sheet

### Chemical Properties

<b>Product Name:</b>	AMG837
<b>Cas No.:</b>	865231-46-5
<b>M.Wt:</b>	438.44
<b>Formula:</b>	C <sub>26</sub> H <sub>21</sub> F <sub>3</sub> O <sub>3</sub>



<b>Chemical Name:</b>	(S)-3-(4-((4'-(trifluoromethyl)-[1,1'-biphenyl]-3-yl)methoxy)phenyl)hex-4-ynoic acid
<b>Canonical SMILES:</b>	<chem>CC#C[C@H](C1=CC=C(OCC2=CC(C3=CC=C(C(F)(F)F)C=C3)=CC=C2)C=C1)[H]CC(=O)O</chem>
<b>Solubility:</b>	Soluble in DMSO
<b>Storage:</b>	Store at -20°C
<b>General tips:</b>	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.
<b>Shopping Condition:</b>	Evaluation sample solution : ship with blue ice All other available size: ship with RT, or blue ice upon request

### Biological Activity

<b>Targets :</b>	GPCR/G protein
<b>Pathways:</b>	Free Fatty Acid Receptors

#### Description:

AMG 837 is a potent and orally bioavailable GPR40 agonist (EC<sub>50</sub>=14nM). [1]  
GPR40 is a G protein-coupled receptor that is activated by free fatty acid. It is located on the cell surface of pancreatic beta-cells, gastrointestinal enteroendocrine cells and immune cells etc.

GPR40 is reported to be related the stimulation effects of fatty acids on insulin and incretin secretion. [2]

AMG 837 treatment on GPR40 containing cell membrane increases [35S]-GTP $\gamma$  binding (EC=1.5 $\pm$ 0.1 nM). AMG 837 also stimulates Ca<sup>2+</sup> influx (EC<sub>50</sub> = 13.5 $\pm$ 0.8 nM) in CHO cells transfected with GPR40 and aequorin. [2]

The insulin secretion is stimulated and the postprandial glucose level is lowered in 8-week old Sprague-Dawley rats orally treated with AMG 837. In Zucker fatty rats treated with AMG 837 daily for 21-days shows decreased glucose excursions and elevated glucose stimulated insulin secretion in glucose tolerance tests. [2]

**Reference:**

1. Houze JB, Zhu L, Sun Y et al. AMG 837: a potent, orally bioavailable GPR40 agonist. *Bioorg Med Chem Lett.* 2012 Jan 15;22(2):1267-70.
2. Lin DC, 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.* 2011;6(11):e27270.

## Caution

**FOR RESEARCH PURPOSES ONLY.**

**NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.**

*Specific storage and handling information for each product is indicated on the product datasheet. Most ApexBio products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.*

**ApexBio Technology**

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