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TMPA

产品编号: D50747

CAS: 1258275-73-8

分子式: C21H32O6

纯度: ≥98%

InChi: InChI=1S/C21H32O6/c1-6-8-9-10-11-12-17(22)15-13-18(24-3)21(26-5)20(25-4)16(15)14-19(23)27-7-2/h13H,6-12,14H2,1-5H3

InChi Key: WCYMJQXRLIDSAQ-UHFFFAOYSA-N

Smiles: COC1C(OC)=C(CC(=O)OCC)C(=CC=1OC)C(=O)CCCCCCC

外观: 固体粉末

作用通路: Others

溶解性: DMSO up to 100 mM

保存条件: Store in dry, dark place for one year.

产品介绍: TMPA is a novel small molecule that binds to orphan Nuclear Receptor Nur77 with high affinity (Kd = 1.45 ± 0.35 μM), and interferes with the Nur77-LKB1 interaction. TMPA’s binding to Nur77 results in the release and shuttling of LKB1 to the cytoplasm to phosphorylate AMPKα. TMPA treatment can effectively reduce blood glucose and alleviate insulin resistance in type II db/db and high-fat diet and streptozotocin-induced diabetic mice but not in diabetic littermates with the Nur77 gene knocked out. TMPA may serve as a powerful chemical tool to attain a mechanistic understanding of the regulation of LKB1-AMPK axis and a lead compound for the design and development of therapeutics to treat metabolic diseases.