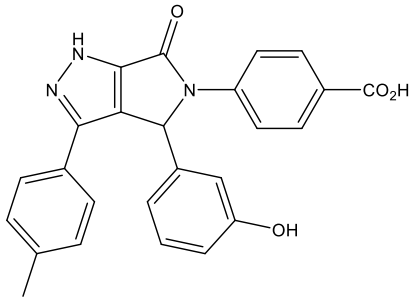
Catalog #10-5362
CID16020046

CAS# 834903-43-4

4-[4,6-Dihydro-4-(3-hydroxyphenyl)-3-(4-methylphenyl)-6-oxopyrrolo[3,4-*c*]pyrazol-5(1*H*)-yl]benzoic acid

Lot # E108437



CID16020046 is a selective GPR55 antagonist.[1] In HEK293 cells expressing GPR55, the compound behaves as an antagonist on lysophosphatidylinositol (LPI)-mediated Ca^{2+} release but was inactive on cells expressing CB1 and CB2. It blocks LPI-induced migration of colon cancer cells.[2] It displays protective effects against oxidized LDL-induced inflammation[3], mitigates advanced glycation end products-induced chondrocyte activation[4], and displays anti-inflammatory effects in various cells[5,6]. A useful tool for studying the role of GPR55 in cellular physiology.

1) Kargl *et al.* (2013), *A selective antagonist reveals a potential role of G protein-coupled receptor 55 in platelet and endothelial cell function*; J. Pharmacol. Exp. Ther. **346** 54
2) Kargl *et al.* (2016), *GPR55 promotes migration and adhesion of colon cancer cells indicating a role in metastasis*; Br. J. Pharmacol. **173** 142
3) Wang *et al.* (2020), *The GPR55 antagonist CID16020046 protects against ox-LDL-induced inflammation in human aortic endothelial cells (HAECs)*; Arch. Biochem. Biophys. **681** 108254
4) Zeng *et al.* (2020), *The GPR55 antagonist CID16020046 mitigates advanced glycation end products (AGEs)- induced chondrocyte activation*; Chem. Biol. Interact. **325** 109088
5) Minamihata *et al.* (2020), *Lysophosphatidylinositol, an Endogenous Ligand for G Protein-Coupled Receptor 55, Has Anti-inflammatory Effects in Cultured Microglia*; Inflammation **43** 1971
6) Son *et al.* (2024), *GPR55 Antagonist CID16020046 Attenuates Obesity-Induced Airway Inflammation by Suppressing Chronic Low-Grade Inflammation in the Lungs*; Int. J. Mol. Sci. **25** 7358

PHYSICAL DATA

Molecular Weight:	425.44
Molecular Formula:	$C_{25}H_{19}N_3O_4$
Purity:	>98% (HPLC)
	NMR: (Conforms)
Solubility:	DMSO (45 mg/mL)
Physical Description:	White to off-white solid
Storage and Stability:	Store as supplied at -20°C for up to 2 years from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 3 months.

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