Acetyl-CoA Carboxylase

ACC, Acetyl Coenzyme A Carboxylase

Acetyl-CoA carboxylase catalyzes the ATP-dependent carboxylation of acetyl-CoA, a rate-limiting step in fatty acid biosynthesis. Acetyl-CoA carboxylase has crucial roles in fatty acid metabolism and is an attractive target for drug discovery against diabetes, cancer, and other diseases.

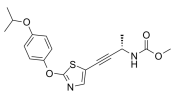
In animals, there are two major isoforms of ACCs, ACC1, and ACC2, which are encoded by different genes and display distinct tissue and cellular distribution. The first committed step of fatty acid synthesis (FASyn) is mediated by ACC, which in mammals is encoded by two related enzymes ACC1 and ACC2, which catalyze the ATP-dependent carboxylation of acetyl-CoA to form malonyl-CoA. ACC1 encodes a cytoplasmic isoform that is thought to be the predominant isoform controlling FASyn, whereas ACC2 is tethered to the mitochondrial outer membrane, where localized malonyl-CoA production blocks carnitine palmitoyltransferase-1 (CPT-1) function to prevent fatty acids from entering the mitochondria to undergo fatty acid oxidation (FAOxn).

Acetyl-CoA Carboxylase Inhibitors

A-908292

Cat. No.: HY-147004

A-908292 is a potent and selective **acetyl-CoA carboxylase 2 (ACC2)** inhibitor, with an IC_{50} of 38 nM. A-908292 can be used for the research of fatty acid metabolism.

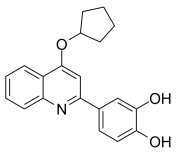


Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

CMS-121

Cat. No.: HY-135981

CMS-121 is a quinolone derivative and an orally active **acetyl-CoA carboxylase 1 (ACC1)** inhibitor. CMS-121 protects HT22 cells against ischemia and oxidative damage with EC_{50} values of 7 nM and 200 nM, respectively.

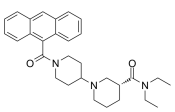


Purity: 99.63%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg

CP-610431

Cat. No.: HY-16946

CP-610431 is a reversible, ATP-uncompetitive, isozyme-nonselective acetyl-CoA carboxylase (**ACC**) inhibitor. CP-610431 inhibits **ACC1** and **ACC2** with IC_{50}s of ~50 nM. CP-610431 can be used for the research of metabolic syndrome.

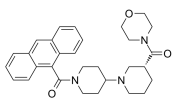


Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

CP-640186

Cat. No.: HY-15259

CP-640186 is a potent and cell-permeable **Acetyl-CoA carboxylase (ACC)** inhibitor with IC_{50}s of 53 nM and 61 nM for rat liver ACC1 and rat skeletal muscle ACC2 respectively.

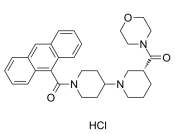


Purity: 98.92%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

CP-640186 hydrochloride

Cat. No.: HY-15259A

CP-640186 hydrochloride is a potent and cell-permeable **Acetyl-CoA carboxylase (ACC)** inhibitor with IC_{50}s of 53 nM and 61 nM for rat liver ACC1 and rat skeletal muscle ACC2 respectively.



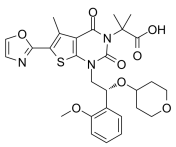
Purity: 99.81%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg, 100 mg

Firsocostat

(ND-630; GS-976; NDI-010976)

Cat. No.: HY-16901

Firsocostat (ND-630; GS-976; NDI-010976) is an acetyl-CoA carboxylase (**ACC**) inhibitor; inhibits human ACC1 and ACC2 with IC_{50} values of 2.1 and 6.1 nM, respectively.

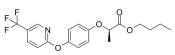


Purity: 99.48%
Clinical Data: Phase 2
Size: 10 mM × 1 mL, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

Fluazifop-P-butyl

Cat. No.: HY-B2007

Fluazifop-P-butyl, a graminicide from arylophenoxypropionate group, is a **acetyl-CoA carboxylase (ACCase)** inhibitor.

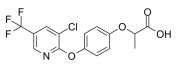


Purity: 98.98%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 50 mg

Haloxyfop

Cat. No.: HY-B1856

Haloxyfop is an aryloxyphenoxypropionic acid **herbicide** and is widely used in grass weeds in broad-leaf crops. Haloxyfop inhibits the acetyl coenzyme A carboxylase (EC 6.4.1.2) from corn seedling chloroplasts with an IC_{50} of 0.5 μM, but has no effect on this enzyme in pea.

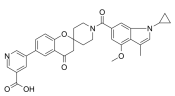


Purity: >98%
Clinical Data: No Development Reported
Size: 5 mg, 10 mg, 25 mg

MK-4074

Cat. No.: HY-107709

MK-4074 is a liver-specific inhibitor of **acetyl-CoA carboxylase** ACC1 and ACC2 with IC_{50} values of approximately 3 nM.

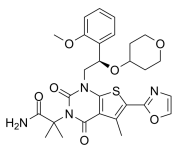


Purity: 99.71%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

ND-646

Cat. No.: HY-101842

ND-646 is an orally bioavailable and steric inhibitor of acetyl-CoA carboxylase (**ACC**) with IC_{50}s of 3.5 nM and 4.1 nM for recombinant hACC1 and hACC2, respectively.



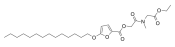
Purity: 99.53%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

Tel: 609-228-6898 Fax: 609-228-5909 Email: sales@MedChemExpress.com

Olumacostat glasaretil

Cat. No.: HY-17641

Olumacostat glasaretil is a small molecule inhibitor of acetyl coenzyme A carboxylase (**ACC**).

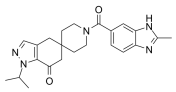


Purity: 98.90%
Clinical Data: Phase 3
Size: 10 mM × 1 mL, 1 mg, 5 mg, 10 mg, 50 mg, 100 mg, 200 mg

PF-05175157

Cat. No.: HY-12942

PF-05175157 is broad spectrum **acetyl-CoA carboxylase** (**ACC**) inhibitor with **IC_{50}**s of 27.0, 33.0, 23.5 and 50.4 nM for ACC1 (human), ACC2 (human), ACC1 (rat), ACC2 (rat), respectively.

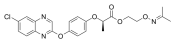


Purity: 98.77%
Clinical Data: Phase 2
Size: 10 mM × 1 mL, 5 mg, 10 mg, 25 mg, 50 mg

Propaquizafop

Cat. No.: HY-117262

Propaquizafop is a phenoxyisopropionic acid herbicide and an **acetyl-coA carboxylase** inhibitor.

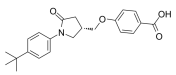


Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

S-2E

Cat. No.: HY-139134

S-2E is an orally active and noncompetitive **HMG-CoA reductase** and **acetyl-CoA carboxylase** inhibitor. S-2E has an anti-hyperlipidemic action. S-2E has the potential for familial hypercholesterolemia and mixed hyperlipidemia research.



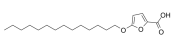
Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

TOFA

(RMI14514; MDL14514)

Cat. No.: HY-101068

TOFA (RMI14514;MDL14514) is an allosteric inhibitor of acetyl-CoA carboxylase-α (**ACCA**).



Purity: 99.59%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg, 100 mg