



Product Information

Product ID C0167

CAS No. 5697-56-3

Chemical Name

Synonym

Formula $C_{34}H_{50}O_7$

Formula Wt. 570.76

Melting Point 292.8°C

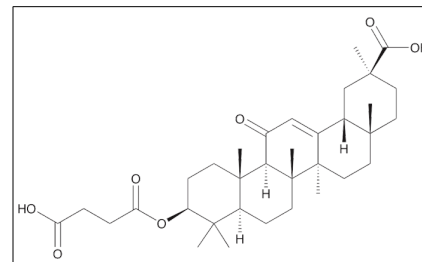
Purity $\geq 97\%$

Solubility 100 mg/ 550 μ L DMSO;
100 mg/ 3 mL Ethanol

Store Temp Ambient

Ship Temp Ambient

Description Carbenoxolone is a synthetic derivative of the active component of licorice (*Glycyrrhiza glabra*) and is most well known for its ability to inhibit gap junction connexin channels and 11 β -hydroxysteroid dehydrogenase. Carbenoxolone displays a wide variety of beneficial properties, including neuroprotective, anti-inflammatory, and anti-obesity activities. In animal models, carbenoxolone decreases stroke infarction size and neuronal damage after middle cerebral artery occlusion and also delays the onset of experimental autoimmune encephalitis (EAE), potentially by decreasing production of IL-23 and Th17 cells. Carbenoxolone also prevents atrial inflammation and atrial fibrillation by inhibiting macrophage migration into atria. This compound exudes several benefits in obese mice, inhibiting expression of sterol regulatory element binding protein 1c (SREBP1C) and preventing development of fatty liver disease. In vitro, carbenoxolone inhibits expression of pro-inflammatory cytokines and apoptotic proteins; it also prevents fatty acid-induced expression of ROS and reverses fatty acid-induced mitochondrial membrane depolarization. In high-fed diet mice, this compound decreases expression of GLUT4, PPAR- γ , and other lipid-regulating genes, resulting in decreased body weight and visceral fat mass and increased sensitivity to insulin. TEST!!!!!!



Pricing and Availability

Bulk quantities available upon request

Product ID	Size	List Price
C0167	1 g	\$27.80
C0167	5 g	\$83.30
C0167	25 g	\$242.80

References Beraki S, Litrus L, Soriano L, et al. A pharmacological screening approach for discovery of neuroprotective compounds in ischemic stroke. PLoS One. 2013 Jul 18;8(7):e69233. PMID: 23874920.

Okuda H, Nishida K, Higashi Y, et al. NAD(+) influx through connexin hemichannels prevents poly(ADP-ribose) polymerase-mediated astrocyte death. Life Sci. 2013 Apr 19;92(13):808-14. PMID: 23454167.

Oishi S, Sasano T, Tateishi Y, et al. Stretch of atrial myocytes stimulates recruitment of macrophages via ATP released through gap-junction channels. J Pharmacol Sci. 2012;120(4):296-304. PMID: 23196902.

Rhee SD, Kim CH, Park JS, et al. Carbenoxolone prevents the development of fatty liver in C57BL/6-Lep ob/ob mice via the inhibition of sterol regulatory element binding protein-1c activity and apoptosis. Eur J Pharmacol. 2012 Sep 15;691(1-3):9-18. PMID: 22742899.

Sano S, Nakagawa Y, Yamaguchi R, et al. Carbenoxolone alters the morphology of adipose tissues and downregulates genes involved in adipogenesis, glucose transport and lipid metabolism in high-fat diet-fed mice. Horm Metab Res. 2012 Jan;44(1):15-20. PMID: 22205568.

Endong L, Shijie J, Sonobe Y, et al. The gap-junction inhibitor carbenoxolone suppresses the differentiation of Th17 cells through inhibition of IL-23 expression in antigen presenting cells. J Neuroimmunol. 2011 Dec 15;240-241:58-64. PMID: 22036952.

Caution: This product is intended for laboratory and research use only. It is not for human or drug use.