

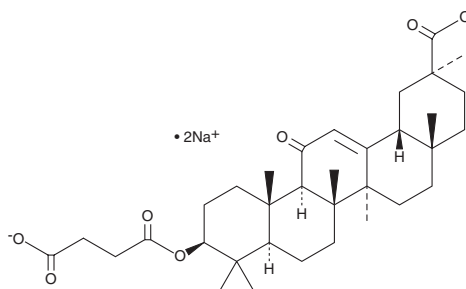
PRODUCT INFORMATION



Carbenoxolone (sodium salt)

Item No. 18240

CAS Registry No.: 7421-40-1
Formal Name: (3 β ,20 β)-3-(3-carboxy-1-oxopropoxy)-11-oxo-olean-12-en-29-oic acid, disodium salt
MF: C₃₄H₄₈O₇ • 2Na
FW: 614.7
Purity: $\geq 98\%$
Stability: ≥ 2 years at -20°C
Supplied as: A crystalline solid
UV/Vis.: λ_{max} : 250 nm



Laboratory Procedures

For long term storage, we suggest that carbenoxolone (sodium salt) be stored as supplied at -20°C. It should be stable for at least two years.

Carbenoxolone (sodium salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the carbenoxolone (sodium salt) in the solvent of choice. Carbenoxolone (sodium salt) is soluble in organic solvents such as ethanol, which should be purged with an inert gas. The solubility of carbenoxolone (sodium salt) in this solvent is approximately 14 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of carbenoxolone (sodium salt) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of carbenoxolone (sodium salt) in PBS, pH 7.2, is approximately 3 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Carbenoxolone is a derivative of β -glycyrrhetic acid (Item No. 11845), a major metabolite of glycyrrhizin, one of the main constituents of licorice. Similar to β -glycyrrhetic acid and glycyrrhizin, carbenoxolone has been shown to exhibit anti-ulcerative and anti-inflammatory properties.¹ Carbenoxolone inhibits 11 β -hydroxysteroid dehydrogenase type 1 (11 β -HSD1; Item No. 10007815) conversion of cortisol to cortisone, which contributes to its potential to induce mineralocorticoid hypertension.² It is also reported to inhibit 11 β -HSD2 conversion of cortisone to cortisol resulting in improved cognitive and neuroprotective effects.³

References

1. Sircus, W. Carbenoxolone sodium. *Gut* **13**(10), 816-824 (1972).
2. Quinkler, M. and Stewart, P.M. Hypertension and the cortisol-cortisone shuttle. *J. Clin. Endocrinol. Metab.* **88**(6), 2384-2392 (2003).
3. Hellmich, H.L., Rojo, D.R., Micci, M.A., et al. Pathway analysis reveals common pro-survival mechanisms of metyrapone and carbenoxolone after traumatic brain injury. *PLoS One* **8**(1), e53230 (2013).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 • USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM