



# SZABO SCANDIC

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## Produktinformation



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- Expressversand

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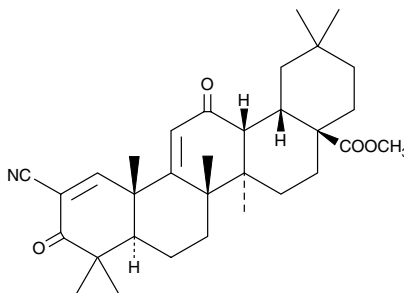
# Product Information



## CDDO methyl ester

Item No. 11883

**CAS Registry No.:** 218600-53-4  
**Formal Name:** 2-cyano-3,12-dioxo-oleana-1,9(11)-dien-28-oic acid, methyl ester  
**Synonyms:** Bardoxolone methyl, NSC 713200, RTA 402, TP-155  
**MF:**  $C_{32}H_{43}NO_4$   
**FW:** 505.7  
**Purity:** ≥98%  
**Stability:** ≥2 years at -20°C  
**Supplied as:** A crystalline solid  
**UV/Vis.:**  $\lambda_{max}$ : 240 nm



### Laboratory Procedures

For long term storage, we suggest that CDDO methyl ester be stored as supplied at -20°C. It should be stable for at least two years.

CDDO methyl ester is supplied as a crystalline solid. A stock solution may be made by dissolving the CDDO methyl ester in the solvent of choice. CDDO methyl ester is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of CDDO methyl ester in ethanol is approximately 10 mg/ml and approximately 5 mg/ml in DMSO and DMF.

CDDO methyl ester is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, CDDO methyl ester should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. CDDO methyl ester has a solubility of approximately 0.3 mg/ml in a 1:2 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

The synthetic oleanane triterpenoid CDDO (Item No. 81035) is a Nrf2 activator that inhibits proliferation and induces differentiation and apoptosis in various cancer cells. The C-28 methyl ester of CDDO (CDDO methyl ester) blocks the cellular synthesis of inducible nitric oxide synthase (iNOS) and inducible COX-2 in INF-γ-activated mouse macrophages with an  $IC_{50}$  value of 0.11 nM.<sup>1,2</sup> It induces apoptosis, induces differentiation, and inhibits the inflammatory response in various tumor cells through inhibition of IκBα kinase/NF-κB signaling.<sup>3,4</sup> CDDO methyl ester has potent antidiabetic activity, reducing proinflammatory cytokine expression in high fat diet-fed type 2 diabetic mice and in *Lepr<sup>db/db</sup>* mice and triggering AMP-activated protein kinase and LKB1 activation in muscle and liver.<sup>5</sup>

### References

1. Honda, T., Honda, Y., Favaloro, F.G. Jr., *et al. Bioorg. Med. Chem. Lett.* **12**, 1027-1030 (2002).
2. Sporn, M.B., Liby, K.T., Yore, M.M., *et al. J. Nat. Prod.* **74**, 537-545 (2011).
3. Konopleva, M., Tsao, T., Ruvolo, P., *et al. Blood* **99**(1), 326-335 (2002).
4. Shishodia, S., Sethi, G., Konopleva, M., *et al. Clin. Cancer Res.* **16**(6), 1828-1838 (2006).
5. Saha, P.K., Reddy, V.T., Konopleva, M., *et al. J. Biol. Chem.* **285**(52), 40581-40592 (2010).

### Related Products

For a list of related products please visit: [www.caymanchem.com/catalog/11883](http://www.caymanchem.com/catalog/11883)

**WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY; NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.**

#### SAFETY DATA

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