

Product Name: CDDO Im

Catalog No.: 4737

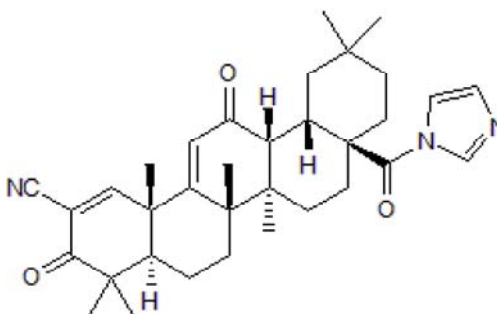
Batch No.: 2

CAS Number: 443104-02-7

IUPAC Name: 1-(2-Cyano-3,12,28-trioxoleana-1,9(11)-dien-28-yl)-1H-imidazole

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₃₄H₄₃N₃O₃
Batch Molecular Weight: 541.72
Physical Appearance: White solid
Solubility: DMSO to 100 mM
Storage: Store at RT
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.15 (Ethyl acetate:Petroleum ether [1:1])
HPLC: Shows 98.5% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	75.38	8	7.76
Found	75.08	7.99	8.09

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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IUPAC Name: 1-(2-Cyano-3,12,28-trioxooleana-1,9(11)-dien-28-yl)-1H-imidazole

Description:

CDDO Im is an Nrf2 signaling activator; increases Nrf2 protein expression and enhances Nrf2-dependent cytoprotective gene expression. CDDO Im inhibits cell growth and induces apoptosis of pancreatic cancer cells in vitro. Also reduces acetaminophen-induced liver injury in mice.

Physical and Chemical Properties:

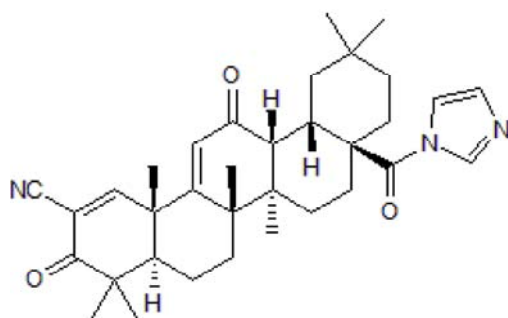
Batch Molecular Formula: C₃₄H₄₃N₃O₃

Batch Molecular Weight: 541.72

Physical Appearance: White solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at RT

Solubility & Usage Info:

DMSO to 100 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Aleksunes et al (2010) Transcriptional regulation of renal cytoprotective genes by Nrf2 and its potential use as a therapeutic target to mitigate cisplatin-induced nephrotoxicity. *J.Pharmacol.Exp.Ther.* **335** 2. PMID: 20605904.

Reisman et al (2009) CDDO-Im protects from acetaminophen hepatotoxicity through induction of Nrf2-dependent genes. *Toxicol.Appl.Pharmacol.* **236** 109. PMID: 19371629.

Samudio et al (2005) 2-Cyano-3,12-dioxooleana-1,9-dien-28-imidazolide (CDDO-Im) directly targets mitochondrial glutathione to induce apoptosis in pancreatic cancer. *J.Biol.Chem.* **280** 36273. PMID: 16118208.

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