

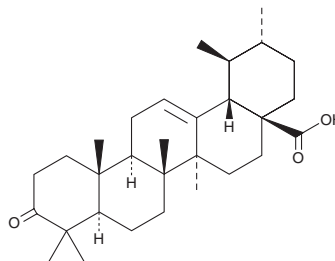
# PRODUCT INFORMATION



## 3-keto Ursolic Acid

Item No. 37364

**CAS Registry No.:** 6246-46-4  
**Formal Name:** 3-oxo-urs-12-en-28-oic acid  
**Synonyms:** UNA, Ursonic Acid  
**MF:** C<sub>30</sub>H<sub>46</sub>O<sub>3</sub>  
**FW:** 454.7  
**Purity:** ≥95%  
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:** ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

3-keto Ursolic acid is supplied as a solid. A stock solution may be made by dissolving the 3-keto ursolic acid in the solvent of choice, which should be purged with an inert gas. 3-keto Ursolic acid is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of 3-keto ursolic acid in ethanol is approximately 5 mg/ml and approximately 20 mg/ml in DMSO and DMF.

### Description

3-keto Ursolic acid is a triterpenoid that has been found in *Z. jujuba* and has diverse biological activities.<sup>1,2</sup> It inhibits the proliferation of, and colony formation by, MG-63 osteosarcoma cells when used at 10 and 20 μM.<sup>1</sup> 3-keto Ursolic acid inhibits protein tyrosine phosphatase 1B (PTP1B) and α-glucosidase (IC<sub>50</sub>s = 11.68 and 61.85 μM, respectively).<sup>2</sup> It inhibits glucose- and fructose-induced advanced glycation end product (AGE) formation in a cell-free assay when used at a concentration of 50 μM. 3-keto Ursolic acid (25, 50, and 100 μM) increases glucose uptake in insulin-resistant C2C12 mouse skeletal muscle myoblasts.

### References

1. Son, J., Cha, H., Lee, S., *et al.* Ursonic acid inhibits migration and invasion of human osteosarcoma cells through the suppression of mitogen-activated protein kinases and matrix metalloproteinases. *Mol. Biol. Rep.* **50(5)**, 4029-4038 (2023).
2. Ali, M.Y., Park, S.E., Seong, S.H., *et al.* Ursonic acid from *Artemisia montana* exerts anti-diabetic effects through anti-glycating properties, and by inhibiting PTP1B and activating the PI3K/Akt signaling pathway in insulin-resistant C2C12 cells. *Chem. Biol. Interact.* **376:110452**, (2023).

#### 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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