

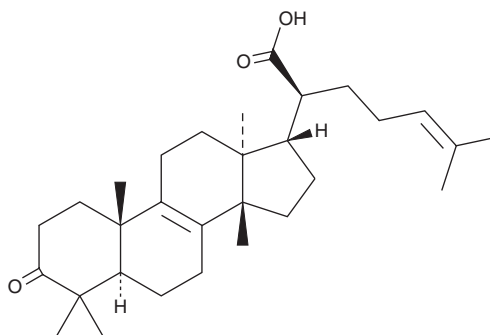
PRODUCT INFORMATION



β-Elementic Acid

Item No. 11712

CAS Registry No.: 28282-25-9
Formal Name: 3-oxo-(13α,14β,17α,20S)-lanosta-8,24-dien-21-oic acid
Synonyms: Elemadienonic Acid, 3-Oxotirucallenoic Acid, 3-oxo Tirucallic Acid
MF: C₃₀H₄₆O₃
FW: 454.7
Purity: ≥98%
Supplied as: A crystalline 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

β-Elementic acid is supplied as a crystalline solid. A stock solution may be made by dissolving the β-elementic acid in the solvent of choice, which should be purged with an inert gas. β-Elementic acid is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of β-elementic acid in ethanol and DMSO is approximately 5 mg/ml and approximately 30 mg/ml in DMF.

β-Elementic acid is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, β-elementic acid should first be dissolved in DMF and then diluted with the aqueous buffer of choice. β-Elementic acid has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

β-Elementic acid is a triterpene isolated from *Boswellia* (*Burseraceae*) that exhibits anticancer activity.^{1,2} It inhibits growth of non-small cell lung cancer (NSCLC) A549 cells (IC₅₀ = 6.92 μM) *in vitro*.² β-Elementic acid induces apoptosis and cytotoxicity in A549 cells in a dose-dependent manner but has no effect on normal epithelial WI-38 cells. It inhibits phosphorylation of p42/44, MAPK/JNK, and p38 and induces production of reactive oxygen species (ROS) and COX-2 expression *in vitro*. β-Elementic acid also inhibits prolyl endopeptidase (IC₅₀ = 39.74 μM) *in vitro*.¹

References

1. Atta-ur-Rahman, Naz, H., Fadimatou, *et al.* Bioactive constituents from *Boswellia papyrifera*. *J. Biol. Chem.* **68**(2), 189-193 (2005).
2. Wu, T.-T., Lu, C.L., Lin, H.I., *et al.* β-Elementic acid inhibits the cell proliferation of human lung adenocarcinoma A549 cells: The role of MAPK, ROS activation and glutathione depletion. *Oncol. Rep.* **35**(1), 227-234 (2016).

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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