LKT Laboratories, Inc.

Oleanolic Acid

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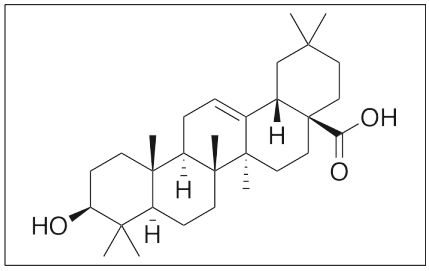
Product Information

Product ID O4417
CAS No. 508-02-1
Chemical Name

Synonym Astrantiagenin C, Caryophyllin, Giganteumgenin C, Oleanic acid, Virgaureagenin B



Formula $C_{30}H_{48}O_3$
Formula Wt. 456.71
Melting Point 310°C
Purity ≥98%
Solubility Soluble in ether, acetone, chloroform or ethanol. Insoluble in water.

Bulk quanitites available upon request

Product ID	Size
O4417	100 mg
O4417	500 mg
O4417	1 g

Store Temp Ambient
Ship Temp Ambient

Description Oleanolic acid is a triterpenoid originally found in *Vigna angularis* and *Trigonella foenum-graecum*. Oleanolic acid exhibits anticancer, anti-inflammatory, anti-allergic, anti-resorptive, and anti-osteoporotic activities. In hypertrophic scar fibroblasts, oleanolic acid induces mitochondria-dependent apoptosis through the activation of p38 MAPK and JNK and increases in caspase expression. In melanoma cells, oleanolic acid decreases cell viability by inducing caspase 3-mediated apoptosis and inhibiting activity of EGFR. Additionally, in animal models, this compound inhibits eosinophil infiltration, airway inflammation, and production of IL-5, IL-13, IL-17, and IgE; this is through to be mediated by upregulation of Foxp3 and downregulation of GATA-3 and RORγt. In bone marrow macrophages, oleanolic acid inhibits RANKL-induced osteoclast differentiation and mature osteoclast differentiation; it also inhibits LPS-induced bone erosion in animal models.

References

Chen JY, Zhang L, Zhang H, et al. Triggering of p38 MAPK and JNK Signaling is Important for Oleanolic Acid-Induced Apoptosis via the Mitochondrial Death Pathway in Hypertrophic Scar Fibroblasts. Phytother Res. 2014 Apr 6. [Epub ahead of print]. PMID: 24706573.

Ghosh S, Bishayee K, Khuda-Bukhsh AR. Oleanolic acid isolated from ethanolic extract of Phytolacca decandra induces apoptosis in A375 skin melanoma cells: drug-DNA interaction and signaling cascade. J Integr Med. 2014 Mar;12(2):102-14.PMID: 24666676.

Kim JY, Cheon YH, Oh HM, et al. Oleanolic acid acetate inhibits osteoclast differentiation by downregulating PLCγ2-Ca(2+)-NFATc1 signaling, and suppresses bone loss in mice. Bone. 2014 Mar;60:104-11. PMID: 24361669.

Kim SH, Hong JH, Lee YC. Oleanolic acid suppresses ovalbumin-induced airway inflammation and Th2-mediated allergic asthma by modulating the transcription factors T-bet, GATA-3, RORγt and Foxp3 in asthmatic mice. Int Immunopharmacol. 2014 Feb;18(2):311-24. PMID: 24374304.