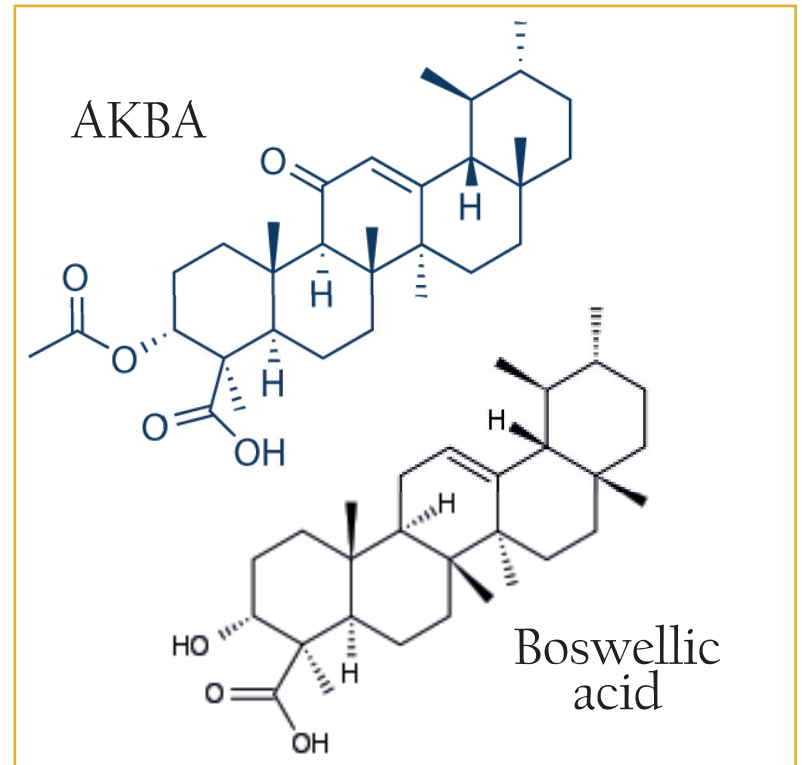


Powdered extracts of Olibanum
(*Boswellia carteri* Birdw.) with stan-
dardized contents of AKBA and
Boswellic Acids

CalAKBA



Calliero

CalAKBA-P powder extract with 6% AKBA (60 g/kg)
and 23% total Boswellic acids (230g/Kg)

CallAKBA

Powdered extract of Olibanum (*Boswellia carteri* Birdw.) with standardized levels of AKBA and Boswellic Acids

The pharmacological effects of *B. carteri* extracts are mainly attributed to suppression of leukotriene formation via inhibition of 5-lipoxygenase (5-LO) by two boswellic acids, keto- β -boswellic acid (KBA) and acetyl-keto- β -boswellic acid (AKBA). β -boswellic acid (β -BA) inhibits microsomal prostaglandin E synthase-1 and the serine protease cathepsin G, two target enzymes related to the anti-inflammatory properties of *B. carteri*. Moreover, KBA and AKBA activate MAP kinase at 30.0 μ M. AKBA is also a potent inhibitor of the formation of both leukotriene B4 (IC₅₀, 2.53 μ g/ml) and leukotriene C4 (IC₅₀, 2.26 μ g/ml) from human polymorphonuclear leukocytes in the same assay. Pre-treatment of human microvascular endothelial cells for 2 days with AKBA potently prevented TNF alpha-induced expression and activity of MMP-3, MMP-10, and MMP-12. *B. carteri* plant extracts exhibit carrier-dependent immunomodulatory properties.



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