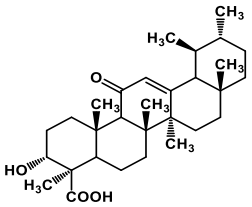
2. 11-Keto β boswellic acid

Name of the Phytochemical	**11-Keto β boswellic acid**
Chemical Structure	
Botanical Source	Boswellia serrata
CAS Number	17019-92-0
Functional Activity	• a novel Nrf2 activator, and a selective 5-lipoxygenase (5-LOX) inhibitor • Possesses significant anti-inflammatory and anti-tumoral activities

Key References	1. *Biotransformation of 11-keto-β-boswellic acid by Cunninghamella blakesleana. Phytochemistry. 2013, 96, 30-6* **2.** *11-Keto-boswellic acid derived amides and monodesmosidic saponins induce apoptosis in breast and cervical cancers cells. Eur J Med Chem., 2015, 100, 98-105* **3.** *Posttreatment with 11-Keto-β-Boswellic Acid Ameliorates Cerebral Ischemia-Reperfusion Injury: Nrf2/HO-1 Pathway as a Potential Mechanism. Mol Neurobiology. 2015, 52, 1430-1439* 4. *A novel cyano derivative of 11-keto-β-boswellic acid causes apoptotic death by disrupting PI3K/AKT/Hsp-90 cascade, mitochondrial integrity, and other cell survival signaling events in HL-60 cells. Mol Carcinog., 2012, 51, 679-95* 5. *A propionyloxy derivative of 11-keto-β-boswellic acid induces apoptosis in HL-60 cells mediated through topoisomerase I & II inhibition. Chem Biol Interact., 2011, 189, 60-71* 6. *The selective 5-LOX inhibitor 11-keto-β-boswellic acid protects against myocardial ischemia reperfusion injury in rats: involvement of redox and inflammatory cascades. Naunyn Schmiedebergs Arch Pharmacology, 2013, 386, 823-33* 7. *New derivatives of 11-keto-β-boswellic acid (KBA) induce apoptosis in breast and prostate cancers cells. Natural Product Research, 2019, 1, 1-10* **8.** Acetyl-11-keto-β-boswellic acid (AKBA); Targeting oral cavity pathogens. **BMC Research Notes, 2011, 4, 406** 9. Synthesis of new analogs of AKBA and evaluation of their anti-inflammatory activities. **Bioorg Med Chem., 2017 , 25, 1374-1388** **10.** Role of 3-Acetyl-11-Keto-Beta-Boswellic Acid in Counteracting LPS-Induced Neuroinflammation via Modulation of miRNA-155. **Mol Neurobiology, 2017 , Oct 27** **11.** Design and synthesis of novel 2-substituted 11-keto-boswellic acid heterocyclic derivatives as anti-prostate cancer agents with Pin1 inhibition ability**. Eur J Med Chem., 2017, 126, 910-919**

	12. Ring A-modified Derivatives from the Natural Triterpene 3-O-acetyl-11-keto-β-Boswellic Acid and their Cytotoxic Activity. **Anticancer Agents Med Chem., 2017, 17, 1153-1167**