

0011 - Boswellia for Boswellic Acid by HPLC

Botanical Name: *Boswellia serrata*

Common Names: Indian frankincense, Salai, Shallaki

Plant Description:

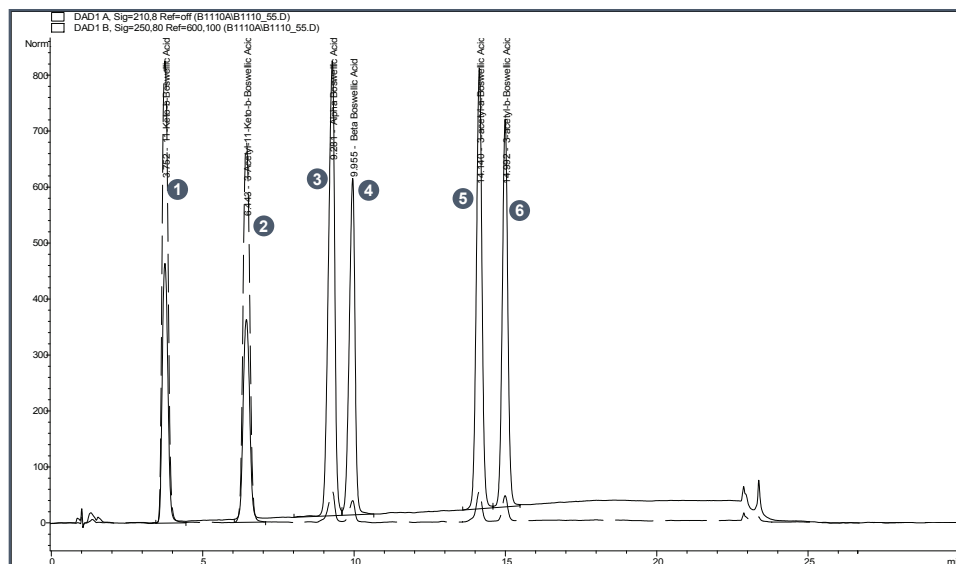
Boswellia serrata is native to India and Pakistan. This tree is medium sized reaching 4-5m in height. The leaves are variable in shape, oppositely placed with rounded bases and serrated margins. Flowers appear between February and April with fruit ripening between May and June. Flowers are white and each fruit produces three seeds. The bark is grey and thin with a paper like feel, and when peeled off or damaged produces an oleo-gum which is used for medicinal purposes.



Therapeutic Use Overview:

Extracts of *Boswellia serrata* have a wide range of medicinal and pharmacological uses. Boswellic acids, from extracts of the oleo-gum, have been proven to treat osteoarthritis and improve joint function. These acids have also shown sedative and analgesic properties, as well as anti-tumor and immunomodulatory activity. Boswellic acids have not been found to exhibit any toxic effects, and can exhibit medicinal value in doses as low as 1-1.5ml per dosing. Other usage includes as a stimulant, a diaphoretic, in urinary disorders and obesity.

Representative HPLC Analysis: Mixed Standard Solution



Analytes:

- 1 11-keto-β-Boswellic acid, 2 3-acetyl-β-Boswellic acid, 3 α-Boswellic acid, 4 β-Boswellic acid
5 3-acetyl-α-Boswellic acid, 6 3-acetyl-β-Boswellic acid

Instrument Parameters

Column: Phenomenex Synergi Max-RP
150 x 3.0 mm, 4u

Detection: UV-Vis @210 &
250 nm

Flow Rate: 0.7 mL/min

Injection Volume: 50 µL

Temperature: 25°C

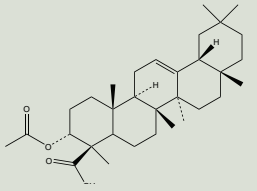
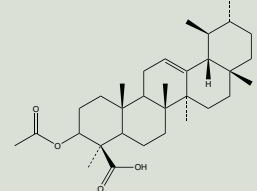
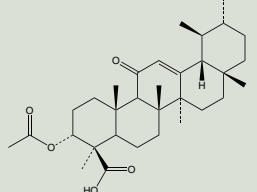
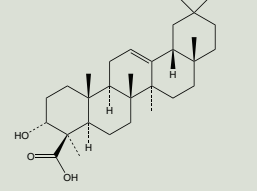
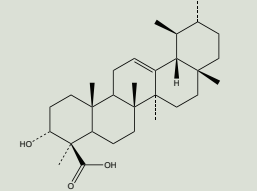
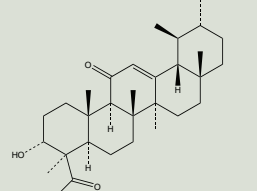
Mobile Phase A: Acetonitrile

Mobile Phase B: Acetonitrile:Water:
H3PO4 (80:20:0.1)

Gradient Program

Time (min)	%A	%B
0	0	100
15	100	0
20	100	0
21	0	100
30	0	100

Phytochemical Reference Standards

Product Description And Details	Product ID	Qty
 <p>ACETYL-a-BOSWELLIC ACID, 3- Grade: P CAS#: [89913-60-0] Chemical Formula: $C_{32}H_{50}O_4$ FW: 498.74</p>	ASB-00002560-005 ASB-00002560-010	5mg 10mg
 <p>ACETYL-B-BOSWELLIC ACID, 3 Grade: SH CAS#: [5968-70-7] Chemical Formula: $C_{32}H_{50}O_4$ FW: 498.75</p>	ASB-00002565-005 ASB-00002565-010	5mg 10mg
 <p>ACETYL-11-KETO-B-BOSWELLIC ACID, 3- Grade: P CAS#: [67416-61-9] Chemical Formula: $C_{32}H_{48}O_5$ FW: 512.73</p>	ASB-00002570-005 ASB-00002570-010	5mg 10mg
 <p>BOSWELLIC ACID, a- Grade: SH CAS#: [471-66-9] Chemical Formula: $C_{30}H_{48}O_3$ FW: 456.71</p>	ASB-00002550-005 ASB-00002550-010	5mg 10mg
 <p>BOSWELLIC ACID, B- Grade: P CAS#: [631-69-6] Chemical Formula: $C_{30}H_{48}O_3$ FW: 456.71</p>	ASB-00002555-005 ASB-00002555-010	5mg 10mg
 <p>KETO-B-BOSWELLIC ACID, 11- Grade: P CAS#: [17019-92-0] Chemical Formula: $C_{30}H_{46}O_4$ FW: 470.69</p>	ASB-00002575-005 ASB-00002575-010	5mg 10mg

Reference Standard Kits

Product Name	Contents	Product ID	Qty
BOSWELLIA STANDARDS KIT	ACETYL-11-KETO-β-BOSWELLIC ACID, 3-(P)	KIT-00002600-005	5 x 5mg vials
	ACETYL-α-BOSWELLIC ACID, 3-(P) ACETYL-β-BOSWELLIC ACID, 3-(P) BOSWELLIC ACID, α-(P) BOSWELLIC ACID, β-(P) KETO-B-BOSWELLIC ACID, 11-(P)	KIT-00002600-010	5 x 10mg vials

Botanical Reference Materials

Product Description	Grade	Product ID	Qty
INDIAN FRANKINCENSE (BOSWELLIA SERRATA) RESIN	XRM	ASB-00030155-005	5g
INDIAN FRANKINCENSE (BOSWELLIA SERRATA) RESIN	RGBRM	ASB-00030833-005	5g

Additional Related Compounds

Product Description And Details	Product ID	Qty
BORNEOL, (-)- Grade: SG CAS#: [464-45-9] Chemical Formula: C ₁₀ H ₁₈ O FW: 154.25	ASB-00002356-001 ASB-00002356-250	1g 250mg
BORNYL ACETATE, L- Grade: SG CAS#: [5655-61-8] Chemical Formula: C ₁₂ H ₂₀ O ₂ FW: 196.29	ASB-00002357-001 ASB-00002357-100	1g 100mg
LUPEOL Grade: SH CAS#: [545-47-1] Chemical Formula: C ₃₀ H ₅₀ O FW: 426.72	ASB-00012391-010 ASB-00012391-025	10mg 25mg