

11-Keto-beta-boswellic acid Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: 11-Keto-beta-boswellic acid

Catalog No.: CFN90152

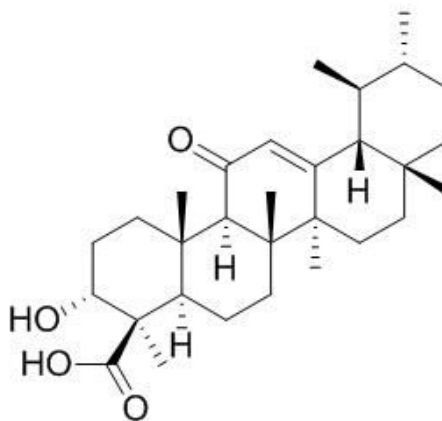
Cas No.: 17019-92-0

Purity: > 98%

M.F: C₃₀H₄₆O₄

M.W: 470.68

Physical Description: White powder



Synonyms: 3-Hydroxy-4,6a,6b,8a,11,12,14b-heptamethyl-14-oxo-1,2,3,4a,5,6,7,8,9,10,11,12,12a,14a-tetradecahydronicene-4-carboxylic acid.

[Intended Use]

1. Reference standards;
2. Pharmacological research;
3. Food research;
4. Cosmetic research;
5. Synthetic precursor compounds;
6. Intermediates & Fine Chemicals;
7. Ingredient in supplements, beverages;
8. Others.

[Source]

The herbs of *Boswellia carterii*.

[Biological Activity or Inhibitors]

11-Keto- β -boswellic acid (KBA) is a triterpenoid compound from extracts of *Boswellia serrata*, a novel Nrf2 activator, it can increase the Nrf2 and HO-1 expression, which provides protection against oxygen and glucose deprivation (OGD)-induced oxidative insult, but knockdown of Nrf2 or HO-1 will attenuate the protective effect of KBA; suggests that the neuroprotection of KBA against oxidative stress-induced ischemic injury involves the Nrf2/HO-1 pathway.^[1]

11-Keto- β -boswellic acid reveals anti-tumoral activity against both ascitic and solid murine tumor models, it induces apoptosis in HL-60 cells due to the inhibition of topoisomerases I and II.^[2]

11-Keto-boswellic acid derived amides and monodesmosidic saponins induce apoptosis in breast and cervical cancers cells.^[3]

11-Keto- β -boswellic acid is a selective 5-lipoxygenase (5-LOX) inhibitor, it exerts dose dependent cardioprotective effect manifested by dose-dependent reduction in serum lactate dehydrogenase and infarct size through mechanisms related to enhancement of antioxidant capacity and prevention of inflammatory cascades.^[4]

[Solvent]

Chloroform, Dichloromethane, Ethyl Acetate, DMSO, Acetone, etc.

[HPLC Method]^[5]

Mobile phase: Acetonitrile-H₂O (adjusted to pH 4 by glacial acetic acid)=90:10 ;

Flow rate: 1.0 ml/min;

Column temperature: 25 °C;

The wave length of determination: 254 nm.

[Storage]

2-8°C, Protected from air and light, refrigerate or freeze.

[References]

- [1] Yi D, Chen M C, Wang M M, *et al. Mol. Neurobiol.*, 2015, 52(3):1-10.
- [2] Chashoo G, Singh S K, Sharma P R, *et al. Chem. Biol. Int.*, 2011, 189(1-2):60-71.
- [3] Csuk R, Barthel-Niesen A, Barthel A, *et al. Eur. J. Med. Chem.*, 2015, 100(14):98-105.
- [4] Elshazly S M, Motteleb D M A E, Nassar N N. *N-S. Arch. Pharmacol.*, 2013, 386(9): 823-33.
- [5] Nikam T D, Ghorpade R P, Nitnaware K M, *et al. Physiol. Mol. Biol. Pla.*, 2013, 19(1): 105-16.

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