

alpha-Chaconine Datasheet

5th Edition (Revised in January, 2017)

[Product Information]

Name: alpha-Chaconine

Catalog No.: CFN00450

Cas No.: 20562-03-2

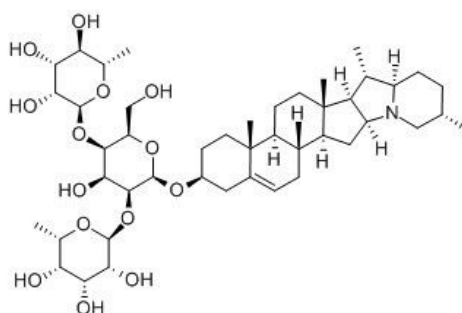
Purity: >=98%

M.F: C₄₅H₇₃NO₁₄

M.W: 852.06

Physical Description: Powder

Synonyms:



[Intended Use]

1. Reference standards;
2. Pharmacological research;
3. Food research;
4. Synthetic precursor compounds;
5. Intermediates & Fine Chemicals;
6. Agricultural research;
7. Others.

[Source]

The peel of *Solanum tuberosum*.

[Biological Activity or Inhibitors]

alpha-Chaconine and alpha-solanine have embryo toxicities.^[1]

Alpha-chaconine has various anticarcinogenic properties, it inhibits A549 cell metastasis by a reduction of matrix metalloproteinase-2 (MMP-2) and matrix metalloproteinase-9 (MMP-9) activities involving suppression of phosphoinositide 3-kinase/Akt/NF-kappaB (PI3K/Akt/NF-kappaB) signaling pathway.^[2]

alpha-Chaconine has anti-angiogenic activity, it can inhibit migration, invasion and tube formation of bovine aortic endothelial cells (BAECs) by reducing MMP-2 activities, as well as JNK and PI3K/Akt signaling pathways and inhibition of NF-kappaB activity. ^[3]

alpha-Chaconine has nematocidal activity, which is increasingly more toxic to a free-living nematode, *Panagrellus redivivus*, with decreasing acidity from about pH 5 to 7.^[4]

[Solvent]

Pyridine, Methanol, Ethanol, etc.

[HPLC Method]^[5]

Mobile phase: Acetonitrile-20 mM KH₂PO₄=80:20 ;

Flow rate: 1.0 ml/min;

Column temperature: 20 °C;

The wave length of determination: 208 nm.

[Storage]

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

[References]

[1] Rayburn J R, Friedman M, Bantle J A. *Food Chem. Toxicol.*, 1995, 33(12):1013-9.

[2] Shih Y W, Chen P S, Wu C H, *et al. J. Agric. Food Chem.*, 2007, 55(26):11035-43.

[3] Lu M K, Chen P H, Shih Y W, *et al. Biol. Pharm. Bull.*, 2010, 33(4):622-30.

[4] Allen E H, Feldmesser J. *J. Nematol.*, 1971, 3(1):58-61.

[5] Friedman M, Roitman J N, Kozukue N. *J. Agric. Food Chem.*, 2003, 51(10):2964-73.

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