

Tenuazonic acid Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Tenuazonic acid

Catalog No.: CFN00139

Cas No.: 610-88-8

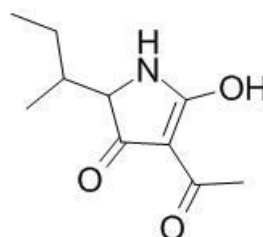
Purity: >97%

M.F: C₁₀H₁₅NO₃

M.W: 197.23

Physical Description: Powder

Synonyms: 2H-pyrrol-2-one, 3-acetyl-1,5-dihydro-4-hydroxy-5-(1-methylpropyl)-, (s-(r*,r;l-3-pyrrolin-2-on; 3-acetyl-5-sec-butyl-4-hydroxy-3-pyrrolin-2-one.



[Intended Use]

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

[Source]

From *Alternaria alternata*.

[Biological Activity or Inhibitors]

Tenuazonic acid (TeA), a nonhost-specific phytotoxin produced by *Alternaria alternata*, was determined to be a novel natural photosynthesis inhibitor owning several action sites in chloroplasts, TeA causing cell necrosis of host-plants is a result of direct oxidative damage from chloroplast-mediated ROS eruption.^[1]

Tenuazonic acid has inhibitory activity for growth of human adenocarcinoma-1.^[2]

[Solvent]

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

[HPLC Method]^[3]

Mobile phase: Acetonitrile -2% Formic acid H₂O=90:10 ;

Flow rate: 0.7 ml/min;

Column temperature: Room Temperature;

The wave length of determination: 226 nm.

[Storage]

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

[References]

[1] Chen S, Yin C, Sheng Q, *et al. B.B.A.-Bioenergetics*, 2010, 1797(3):391-405.

[2] Kaczka E A, Gitterman C O, Dulaney E L, *et al. Biochem. Bioph. Res. Co.*, 1964, 14 (14):54-7.

[3] Yang F Z, Yang B, Li B B, *et al. Journal of Zhejiang Universityence B*, 2015, 16(4): 264-74.

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