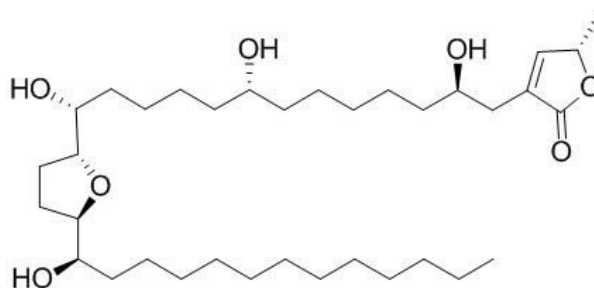


Annonacin Datasheet

4th Edition (Revised in July, 2016)**[Product Information]****Name:** Annonacin**Catalog No.:** CFN97856**Cas No.:** 111035-65-5**Purity:** > 98%**M.F:** C₃₅H₆₄O₇**M.W:** 596.89**Physical Description:** Powder**Synonyms:** 4-[2,8-Dihydroxy-12-[[5-(1-hydroxytridecyl)-2-oxolanyl]methoxy]dodecyl]-2-methyl-2H-furan-5-one.**[Intended Use]**

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

[Source]The herbs of *Annona muricata*.

[Biological Activity or Inhibitors]

Annonacin, a natural lipophilic mitochondrial complex I inhibitor, can increase phosphorylation of tau in the brain of FTDP-17 transgenic mice, and induce nigral and striatal neurodegeneration in rats: possible relevance for atypical parkinsonism in Guadeloupe.^[1,2]

Annonacin in *Asimina triloba* fruit has neurotoxicity, more toxic than rotenone to mesencephalic neurons.^[3]

Annonacin has cytotoxicity, it can activate p21 in a p53-independent manner and arrested T24 cells at the G1 phase, induce Bax expression, enhance caspase-3 activity, and cause apoptotic cell death in T24 cells, suggests that annonacin is potentially a promising anti-cancer compound.^[4]

Annonacin induces cell cycle-dependent growth arrest and apoptosis in estrogen receptor- α -related pathways in MCF-7 cells.^[5]

[Solvent]

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

[HPLC Method]^[6]

Mobile phase: Methanol-H₂O= 90:10;

Flow rate: 1.0 ml/min;

Column temperature: Room Temperature;

The wave length of determination: 220 nm.

[Storage]

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

[References]

[1] Yamada E S, Respondek G, Müssner S, *et al. Exp. Neurol.*, 2014, 253:113-25.

[2] Champy P, Höglinger G U, Féger J, *et al. J. Neurochem.*, 2004, 88(1):63-9.

[3] Potts L F, Luzzio F A, Smith S C, *et al. Neurotoxicology*, 2012, 33(1):53-8.

[4] Yuan S S F, Chang H L, Chen H W, *et al. Life Sci.*, 2003, 72(25):2853-61.

[5] Ko Y M, Wu T Y, Wu Y C, *et al. J. Ethnopharmacol.*, 2011, 137(3):1283-90.

[6] Sun L, Yu J G, Li D Y, *et al. Pharm. J.*, 2001, 36 (09):153-8.

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