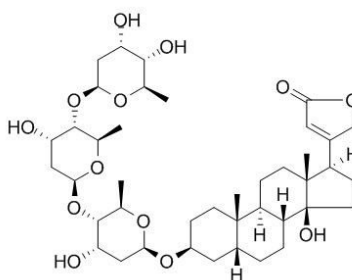


## Digitoxin Datasheet

4<sup>th</sup> Edition (Revised in July, 2016)**[ Product Information ]****Name:** Digitoxin**Catalog No.:** CFN98535**Cas No.:** 71-63-6**Purity:** >=95%**M.F:** C<sub>41</sub>H<sub>64</sub>O<sub>13</sub>**M.W:** 764.94**Physical Description:** Powder**Synonyms:** (3beta,5beta)-3-((o-2,6-dideoxy-beta-d-ribohexopyranosyl-(1-4)-o-2,6-dideoxy-beta; (3beta,5beta)-hexopyranosyl)oxy]-14-hydroxy.**[ Intended Use ]**

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

**[ Source ]**The roots of *Digitalis purpurea* L.**[ Biological Activity or Inhibitors ]**

The cardiac glycosides digitoxin and digoxin have been used in cardiac diseases for many years, digitoxin also has growth inhibition activity in three human cancer cell line.<sup>[1]</sup>

Digitoxin can suppress hypersecretion of IL-8 from cultured cystic fibrosis (CF) lung epithelial cells, the specific mechanism is to block phosphorylation of the inhibitor of NF-kappa B (I kappa B alpha), suggests that digitoxin could as a candidate drug for suppressing IL-8-dependent lung inflammation in CF.<sup>[2]</sup>

Digitoxin has toxicity, fab fragments of antibodies with high affinity for digitoxin are capable of rapid reversal of advanced, otherwise lethal digitoxin toxicity, and are capable of reducing the plasma half-life and accelerating urinary excretion of digitoxin. <sup>[3]</sup>

Digitoxin actively inhibits Herpes simplex virus type 1 (HSV-1) replication with a 50% effective concentration (EC(50)) of 0.05 microM, the inhibitory effects of digitoxin are likely to be introduced at the early stage of HSV-1 replication and the virus release stage, shows that digitoxin can inhibit acyclovir-resistant viruses further implicates that digitoxin represents a novel drug class with distinct antiviral mechanisms from traditional drugs.<sup>[4]</sup>

## **[ Solvent ]**

Pyridine, Methanol, Ethanol, etc.

## **[ HPLC Method ]<sup>[5]</sup>**

Mobile phase: Acetonitrile-H<sub>2</sub>O, gradient elution ;

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] López-Lázaro M, Pastor N, Azrak SS, *et al.* *J. Nat.Prod.*, 2005, 68(11):1642-5.
- [2] Srivastava M, Eidelman O, Zhang J, *et al.* *P. Natl. Acad. Sci.U.S.A.*, 2004, 101(20):7693-8.
- [3] Ochs H R, Smith T W. *J. Clin. Invest.*, 1977, 60(6):1303-13.
- [4] Su C T, Hsu J T, Hsieh H P, *et al.* *Antiviral Res.*, 2008, 79(1):62-70.
- [5] Castle M C. *J. Chromatogr. A*, 1976, 115(2):437-45.

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