

## Certificate of Analysis

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**Product Name:** EBPC

**Catalog No.:** 0518

**Batch No.:** 3

**CAS Number:** 4450-98-0

**IUPAC Name:** Ethyl 1-benzyl-3-hydroxy-2(5*H*)-oxopyrrole-4-carboxylate

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>14</sub>H<sub>15</sub>NO<sub>4</sub>

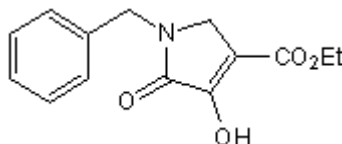
**Batch Molecular Weight:** 261.28

**Physical Appearance:** White solid

**Solubility:** DMSO to 100 mM  
ethanol to 50 mM

**Storage:** Store at +4°C

**Batch Molecular Structure:**



### 2. ANALYTICAL DATA

**HPLC:** Shows 99.7% purity

**<sup>1</sup>H NMR:** Consistent with structure

**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	64.36	5.79	5.36
Found	64.29	5.82	5.39

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

## Product Information

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### Description:

Potent aldose reductase inhibitor. Improves the cytotoxicity of anticancer reagents such as cisplatin (Cat.No. 2251) and doxorubicin (Cat.No. 2252) in HeLa cervical carcinoma cells through an increase in ERK activity.

### Physical and Chemical Properties:

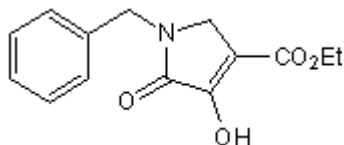
Batch Molecular Formula: C<sub>14</sub>H<sub>15</sub>NO<sub>4</sub>

Batch Molecular Weight: 261.28

Physical Appearance: White solid

**Minimum Purity:** >99%

### Batch Molecular Structure:



**Storage:** Store at +4°C

### Solubility & Usage Info:

DMSO to 100 mM

ethanol to 50 mM

### Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

**SOLIDS:** Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

**SOLUTIONS:** We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

### References:

**Mylari et al** (1991) A highly specific aldose reductase inhibitor, ethyl 1-benzyl-3-hydroxy-2(5*H*)-oxopyrrole-4-carboxylate and its congeners. *J.Med.Chem.* **34** 1011. PMID: 1900532.

**Kyoung et al** (2002) Inhibition of aldose reductase enhances HeLa cell sensitivity to chemotherapeutic drugs and involves activation of extracellular signal-regulated kinases. *Anti-cancer Drugs* **13** 859. PMID: 12394272.

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