

# Certificate of Analysis

**Product Name:** Finasteride

**Catalog No.:** 3293

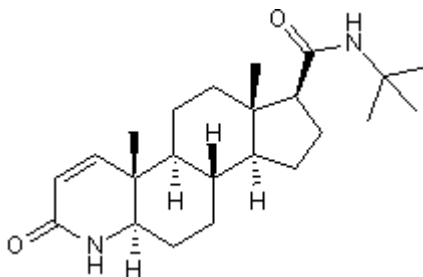
**Batch No.:** 2

CAS Number: 98319-26-7

IUPAC Name: (5 $\alpha$ ,17 $\beta$ )-N-(1,1-Dimethylethyl)-3-oxo-4-azaandrost-1-ene-17-carboxamide

## 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>23</sub>H<sub>36</sub>N<sub>2</sub>O<sub>2</sub>  
**Batch Molecular Weight:** 372.54  
**Physical Appearance:** White solid  
**Solubility:** DMSO to 100 mM  
ethanol to 100 mM  
**Storage:** Store at RT  
**Batch Molecular Structure:**



## 2. ANALYTICAL DATA

**HPLC:** Shows 99.4% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure  
**Optical Rotation:** [ $\alpha$ ]<sub>D</sub> = +12 (Concentration = 1, Solvent = Methanol)  
**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	74.15	9.74	7.52
Found	74.26	9.79	7.56

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

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**Description:**

Antiandrogen that inhibits type II 5 $\alpha$  reductase (IC<sub>50</sub> = 65 nM). Suppresses the conversion of testosterone to dihydrotestosterone. Reduces prostatic dihydrotestosterone levels and prostate size in vivo. Orally active.

**Physical and Chemical Properties:**

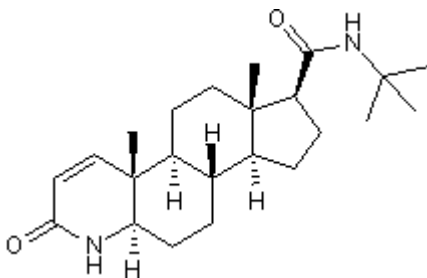
Batch Molecular Formula: C<sub>23</sub>H<sub>36</sub>N<sub>2</sub>O<sub>2</sub>

Batch Molecular Weight: 372.54

Physical Appearance: White solid

**Minimum Purity:** >99%

**Batch Molecular Structure:**



**References:**

**Thigpen and Russell** (1992) Four-amino acid segment in steroid 5 $\alpha$ -reductase 1 confers sensitivity to finasteride, a competitive inhibitor. *J.Biol.Chem.* **267** 8577. PMID: 1314830.

**Gao et al** (2004) Comparison of the pharmacological effects of a novel selective androgen receptor modulator, the 5 $\alpha$ -reductase inhibitor finasteride, and the antiandrogen hydroxyflutamide in intact rats: new approach for benign prostate hyperplasia. *Endocrinology* **145** 5420. PMID: 15308613.

**Mukai et al** (2008) Studies on neurosteroids XXV. Influence of a 5 $\alpha$ -reductase inhibitor, finasteride, on rat brain neurosteroid levels and metabolism. *Biol.Pharm.Bull.* **31** 1646. PMID: 18758053.

**Storage:** Store at RT

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

**Solubility & Usage Info:**

DMSO to 100 mM

ethanol to 100 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.

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