

Certificate of Analysis

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Product Name: Nilutamide

Catalog No.: 1759

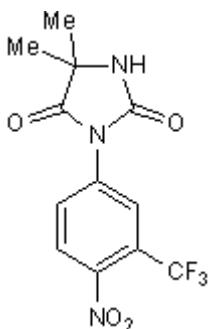
Batch No.: 1

CAS Number: 63612-50-0

IUPAC Name: 5,5-Dimethyl-3-[4-nitro-3-(trifluoromethyl)phenyl]-2,4-imidazolidinedione

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₂H₁₀F₃N₃O₄
Batch Molecular Weight: 317.22
Physical Appearance: White solid
Solubility: ethanol to 25 mM with gentle warming
 DMSO to 25 mM
Storage: Store at RT
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.73 (Chloroform:Methanol [10:3])
Melting Point: Between 162 - 163°C
HPLC: Shows 100% purity
¹H NMR: Consistent with structure
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	45.44	3.18	13.25
Found	45.34	3.18	13.15

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

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Description:

Non-steroidal and silent antiandrogen. Binds to androgen receptors and also inhibits androgen biosynthesis *in vitro*. In rats *in vivo* it inhibits androgen-induced prostate weight increase and inhibits negative androgen-dependent gonadotropin feedback leading to an increase in luteinising hormone and testosterone. Orally active.

Physical and Chemical Properties:

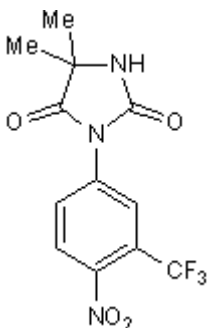
Batch Molecular Formula: C₁₂H₁₀F₃N₃O₄

Batch Molecular Weight: 317.22

Physical Appearance: White solid

Minimum Purity: >99%

Batch Molecular Structure:



Storage: Store at RT

Solubility & Usage Info:

ethanol to 25 mM with gentle warming
DMSO to 25 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:

Raynaud et al (1979) Action of a non-steroid anti-androgen, RU 23908, in peripheral and central tissues. *J.Steroid Biochem.* **11** 93. PMID: 385986.

Raynaud et al (1984) The pure antiandrogen RU 23908 (Anandron), a candidate of choice for the combined antihormonal treatment of prostatic cancer. *The Prostate* **5** 299. PMID: 6374639.

Raynaud et al (1985) Pharmacology and clinical studies with RU 23908 (Anandron). *Prog.Clin.Biol.Res.* **185A** 99. PMID: 4034583.

Ayub and Levell (1987) Inhibition of rat testicular 17- α -hydroxylase and 17,20-lyase activities by anti-androgens (flutamide, hydroxyflutamide, RU23908, cyproterone acetate) *in vitro*. *J.Steroid Biochem.* **28** 43. PMID: 2956461.

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