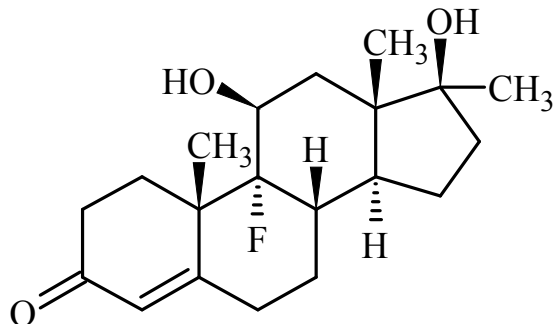




# Fluoxymesterone

The Drug Enforcement Administration's Special Testing and Research Laboratory generated this monograph using structurally confirmed reference material.



## 1. GENERAL INFORMATION

<b>IUPAC Name:</b>	(11 $\beta$ ,17 $\beta$ )-9-fluoro-11,17-dihydroxy-17-methylandrosta-4-en-3-one
<b>CAS#:</b>	76-43-7
<b>Synonyms:</b>	4-Androsten-9 $\alpha$ -fluoro-17 $\alpha$ -methyl-11 $\beta$ ,17 $\beta$ -diol-3-one, 11 $\beta$ ,17 $\beta$ -dihydroxy-9 $\alpha$ -fluoro-17 $\alpha$ -methyl-4-androsten-3-one, 9-Fluoro-17 $\alpha$ -methyl-11 $\beta$ ,17 $\beta$ -dihydroxyandrosta-4-en-3-one, Halotestin
<b>Source:</b>	DEA Reference Material Collection
<b>Appearance:</b>	White powder
<b>UV<sub>max</sub>(nm):</b>	Not Determined

## 2. CHEMICAL AND PHYSICAL DATA

### 2.1 CHEMICAL DATA

Form	Chemical Formula	Molecular Weight	Melting Point (°C)
Base	C <sub>20</sub> H <sub>29</sub> FO <sub>3</sub>	336	279-284



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## 3. QUALITATIVE DATA

### 3.1 NUCLEAR MAGNETIC RESONANCE

**Sample Preparation:** Dilute analyte to ~25 mg/mL in DMSO containing TMS for 0 ppm reference

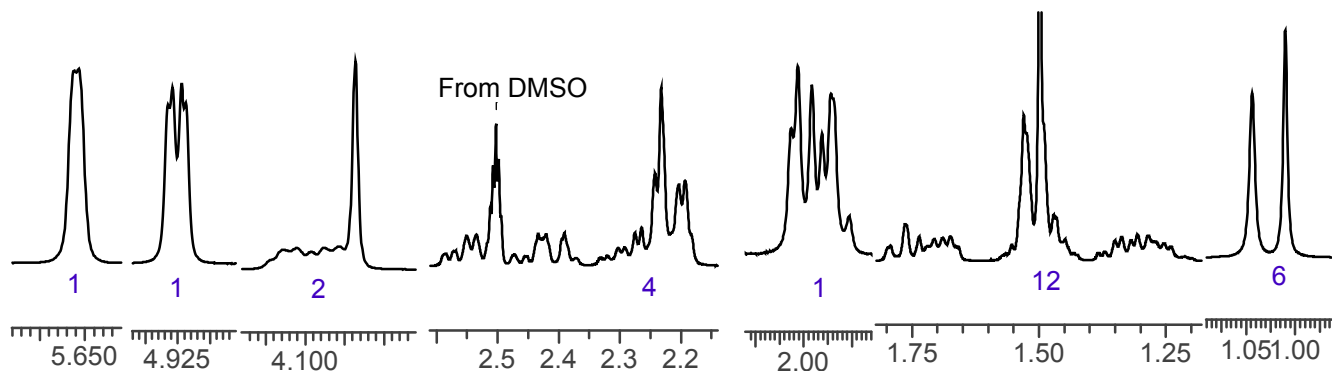
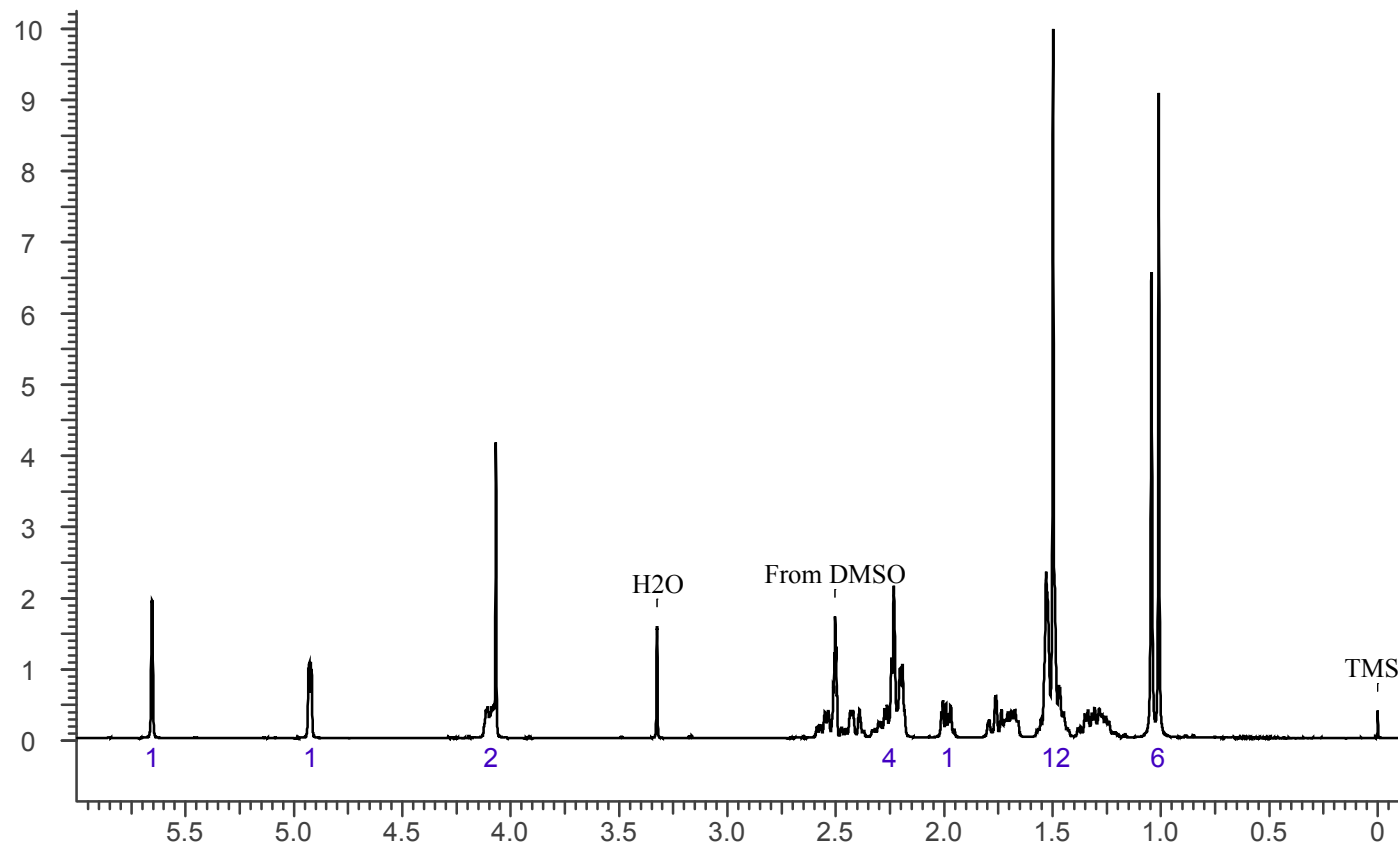
**Instrument:** 400 MHz NMR spectrometer

**Parameters:** Spectral width: at least containing -3 ppm through 13 ppm

Pulse angle: 90°

Delay between pulses: 45 seconds

<sup>1</sup>H NMR: Fluoxymesterone Lot# 735DM, DMSO, 400MHz





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## 3.2 GAS CHROMATOGRAPHY/MASS SPECTROMETRY

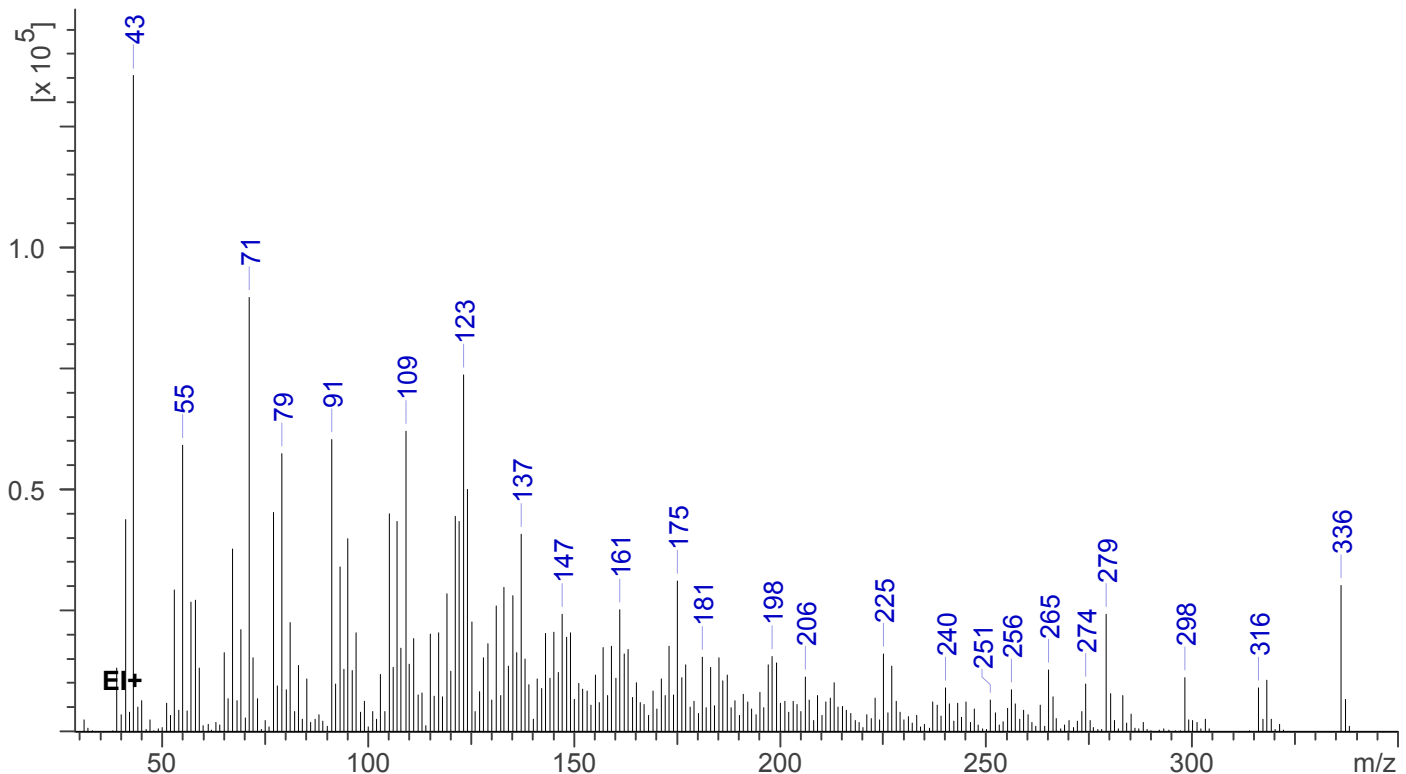
*Sample Preparation:* Dilute analyte ~3 mg/mL in methanol.

**Instrument:** Agilent gas chromatograph operated in split mode with MS detector  
**Column:** DB-1 MS (or equivalent); 30m x 0.25 mm x 0.25  $\mu$ m  
**Carrier Gas:** Helium at 1 mL/min  
**Temperatures:** Injector: 280°C  
MSD transfer line: 280°C  
MS Source: 230°C  
MS Quad: 150°C  
Oven program:  
1) 100°C initial temperature for 1.0 min  
2) Ramp to 300°C at 12 °C/min  
3) Hold final temperature for 30.0 min

**Injection Parameters:** Split Ratio = 25:1, 1  $\mu$ L injected  
**MS Parameters:** Mass scan range: 30-550 amu  
Threshold: 100  
Tune file: stune.u  
Acquisition mode: scan

**Retention Time:** 17.265 min

EI Mass Spectrum: Fluoxymesterone Lot# 735DM



# Fluoxymesterone

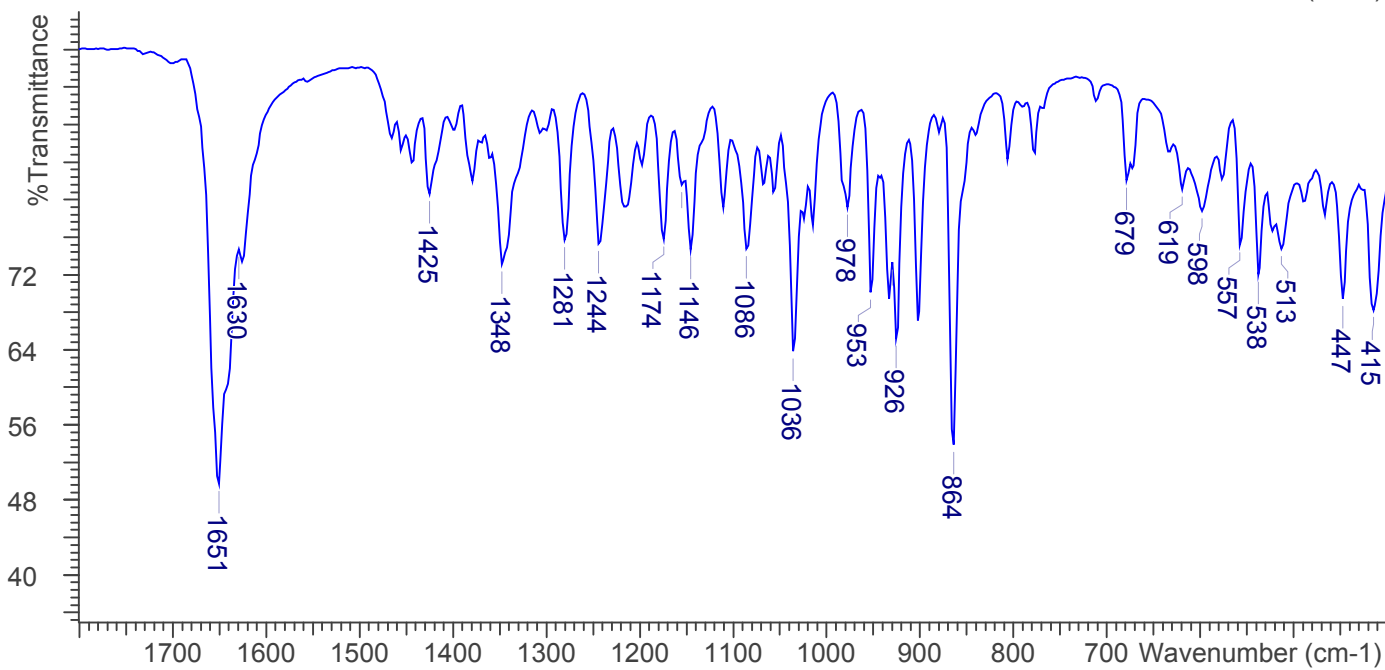
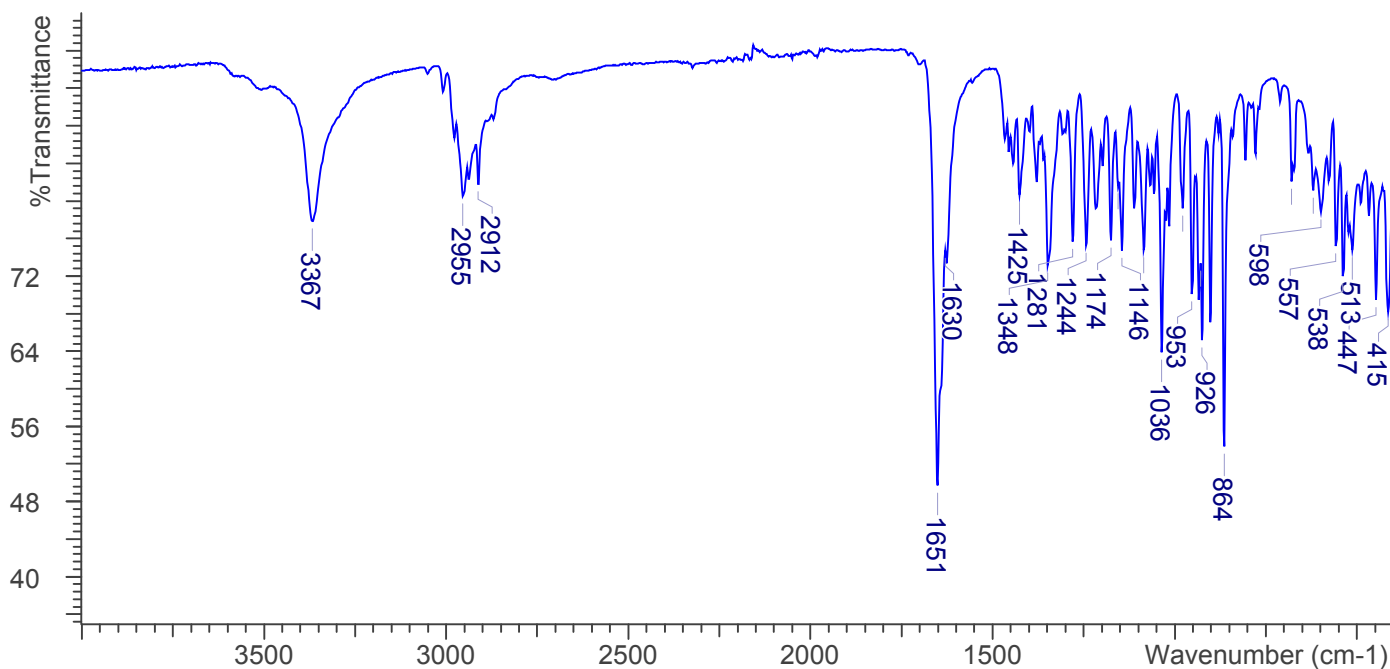
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## 3.3 INFRARED SPECTROSCOPY (FTIR)

**Instrument:** FTIR with diamond ATR attachment (1 bounce)

**Scan Parameters:**  
Number of scans: 32  
Number of background scans: 32  
Resolution: 4 cm<sup>-1</sup>  
Sample gain: 8  
Aperture: 150

FTIR ATR (Diamond, 1 Bounce): Fluoxymesterone Lot# 735DM



## **Fluoxymesterone**

*The Drug Enforcement Administration's Special Testing and Research Laboratory generated this monograph using structurally confirmed reference material.*

### **4. ADDITIONAL RESOURCES**

[Wikipedia](#)

[Forendex](#)