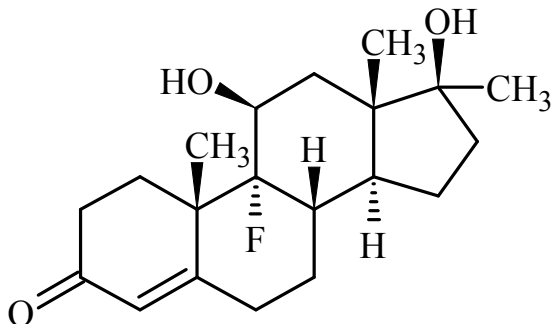




Fluoxymesterone

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



1. GENERAL INFORMATION

IUPAC Name:	(11 β ,17 β)-9-fluoro-11,17-dihydroxy-17-methylandrosta-4-en-3-one
CAS#:	76-43-7
Synonyms:	4-Androsten-9 α -fluoro-17 α -methyl-11 β ,17 β -diol-3-one, 11 β ,17 β -dihydroxy-9 α -fluoro-17 α -methyl-4-androsten-3-one, 9-Fluoro-17 α -methyl-11 β ,17 β -dihydroxyandrosta-4-en-3-one, Halotestin
Source:	DEA Reference Material Collection
Appearance:	White powder
UV_{max}(nm):	Not Determined

2. CHEMICAL AND PHYSICAL DATA

2.1 CHEMICAL DATA

Form	Chemical Formula	Molecular Weight	Melting Point (°C)
Base	C ₂₀ H ₂₉ FO ₃	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

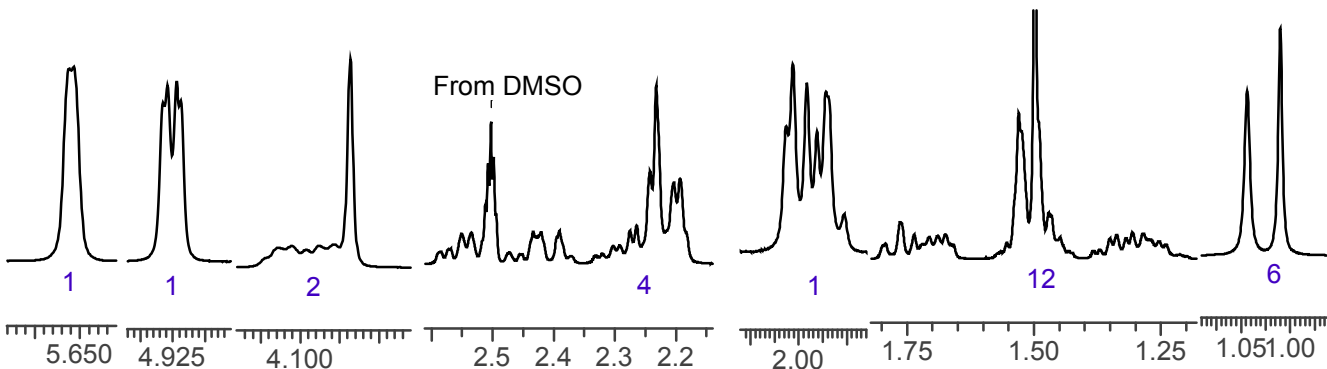
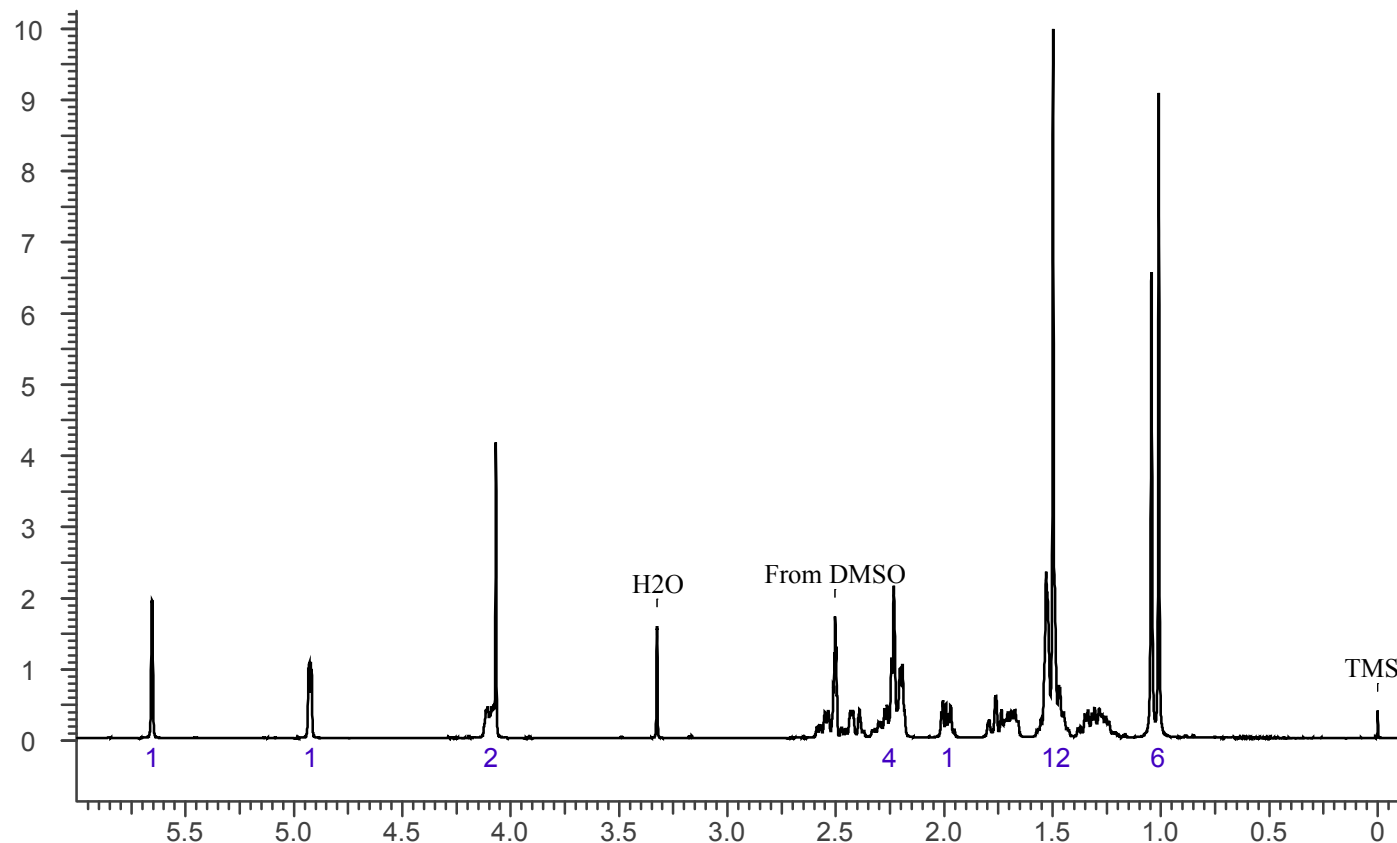
Instrument: 400 MHz NMR spectrometer

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

Pulse angle: 90°

Delay between pulses: 45 seconds

¹H NMR: Fluoxymesterone Lot# 735DM, DMSO, 400MHz





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3.2 GAS CHROMATOGRAPHY/MASS SPECTROMETRY

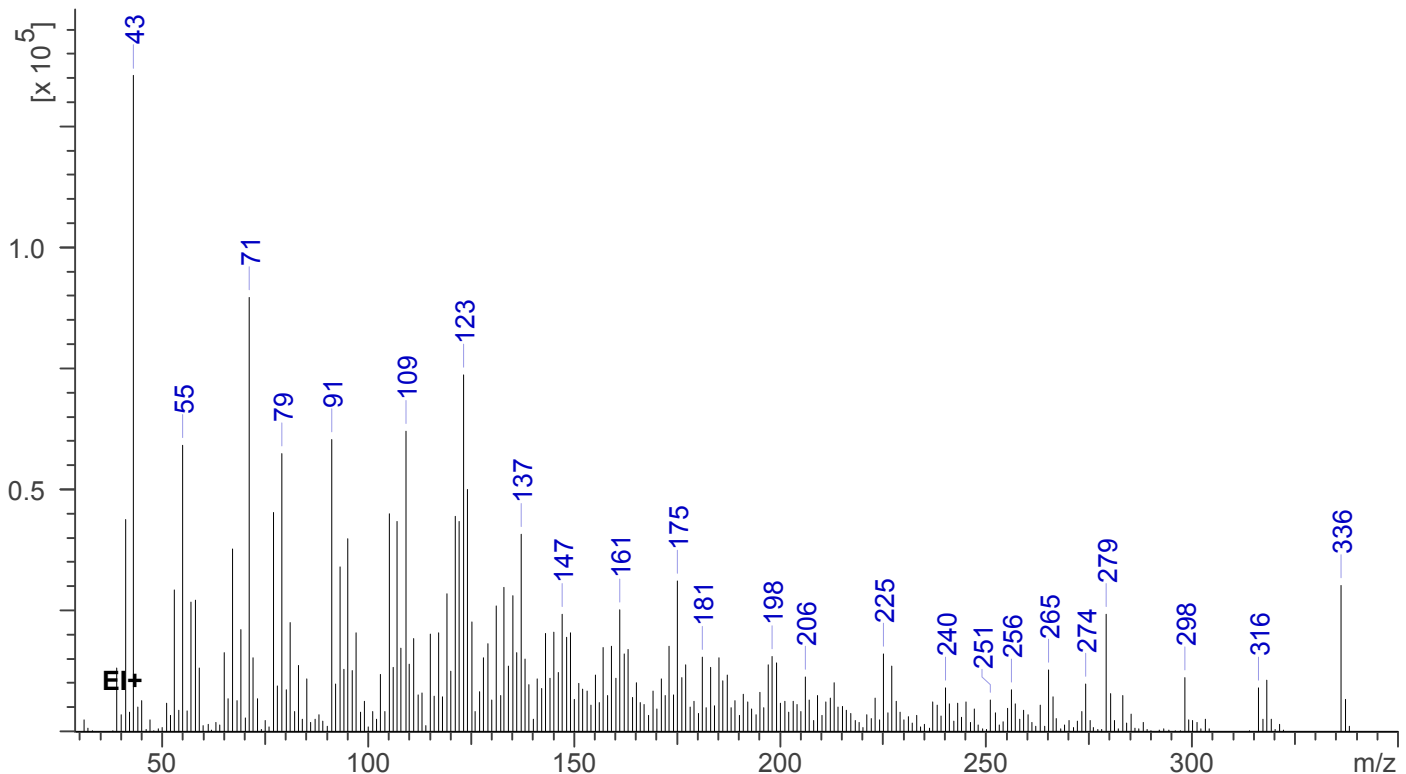
Sample Preparation: Dilute analyte ~3 mg/mL in methanol.

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 μ 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 μ 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

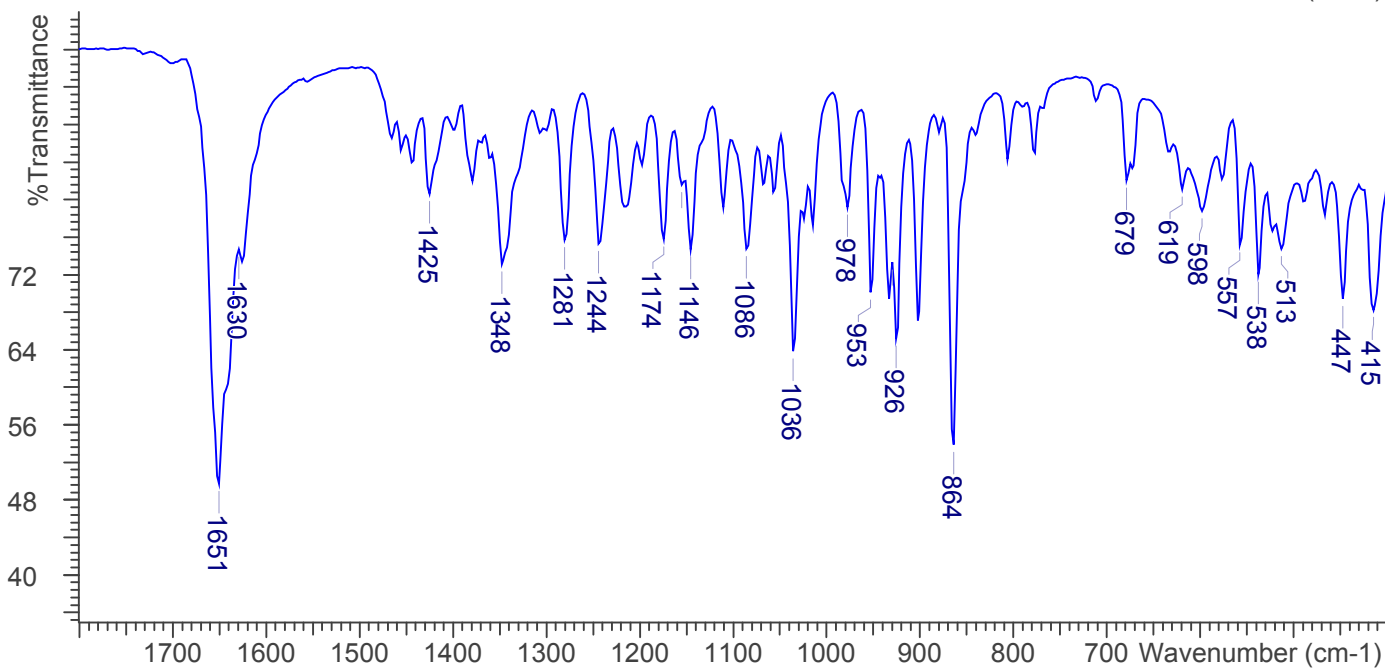
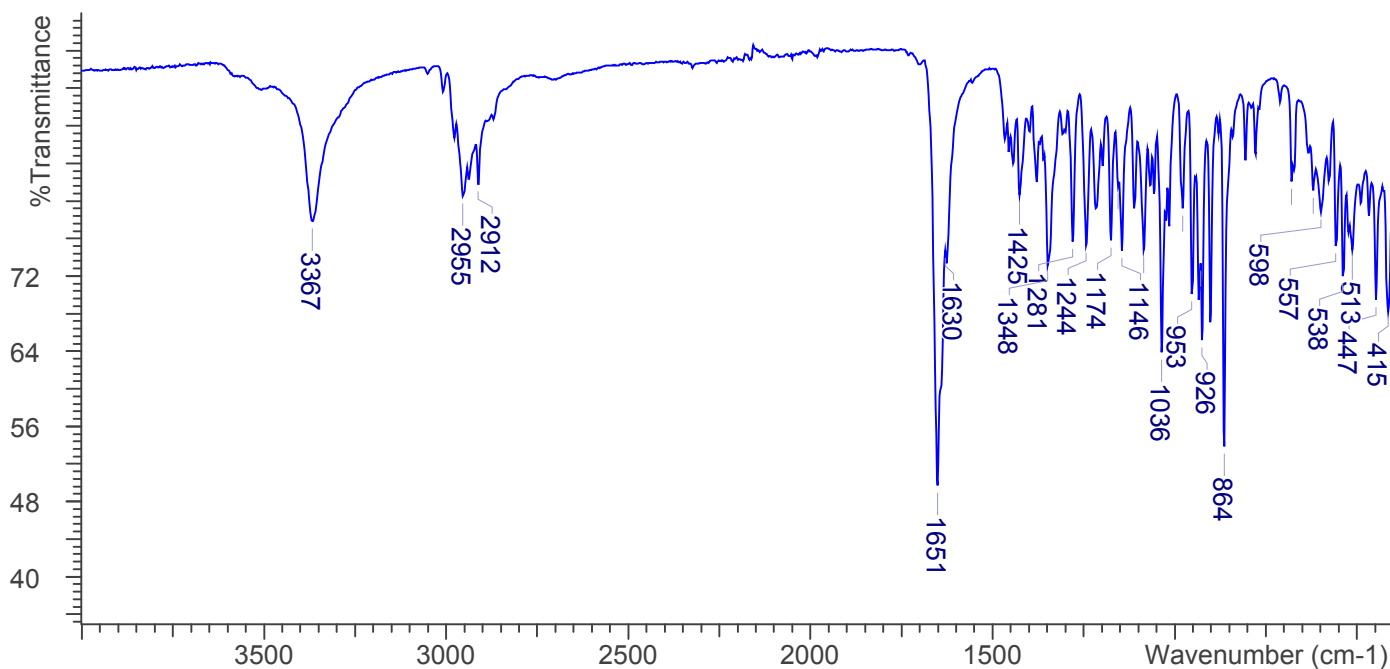
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3.3 INFRARED SPECTROSCOPY (FTIR)

Instrument: FTIR with diamond ATR attachment (1 bounce)

Scan Parameters:
Number of scans: 32
Number of background scans: 32
Resolution: 4 cm⁻¹
Sample gain: 8
Aperture: 150

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



Fluoxymesterone

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4. ADDITIONAL RESOURCES

[Wikipedia](#)

[Forendex](#)