Datasheet $17\alpha$-Trenbolone

Reference number : EU/CRL: 57

Date of preparation : 2003.11.15

source : NARL

“Bank of Reference Standards”
Molecular structure of 17\textsubscript{a}-trenbolone

Name : 17\textsubscript{a}-hydroxy-estra-4,9,11-trien-3-one
Synonym : 17\textsubscript{a}-trenbolone
Molecular formula : C\textsubscript{18}H\textsubscript{22}O\textsubscript{2}
CAS # : 80657-17-6
Molecular weight : 270.4
Indication of purity : > 95 %

Last update : 2004.02.17

Methods used for characterization:

I Mass spectrometry
II HPLC-UV spectroscopy and UV-scan
III IR spectroscopy
IV Homogeneity and stability obtained with GC-MS
I MASS-SPECTROMETRY

Instrument: Hewlett Packard 5989A MS
MS spectrum, full scan

Mass spectrum (EI) of \(-\text{trenbolone-mono-TMS}\) (derivatized with BSTFA + 1% TMCS)

Mass spectrum (EI) of \(-\text{trenbolone-mono-HFB}\) (derivatized with HFBA/Aceton (1:4))
II HPLC-UV SPECTROSCOPY AND UV-SCAN

HPLC-UV of \(-\)-trenbolone

UV-scan of \(-\)-trenbolone

Instrument: Cary 3 UV-visible spectrophotometer
Instrument: Bruker IFS-55 FTIR; detector DTGS
Sampling technique: KBr-tablet.

![17α-Trenbolone IR Spectrum](image)
IV HOMOGENEITY AND STABILITY

The homogeneity of the ampoules was tested at random. All tested ampoules contained 100 g 17α-trenbolone. During 8 weeks the stability of the ampoules was tested. The ampoules were stored at 3 different temperatures during 1, 2, 4 and 8 weeks and afterwards the concentration of 17α-trenbolone was measured. The results are given in the tables below.

<table>
<thead>
<tr>
<th>time (weeks)</th>
<th>4°C</th>
<th>20°C</th>
<th>37°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>117</td>
<td>117</td>
<td>117</td>
</tr>
<tr>
<td>1</td>
<td>136</td>
<td>109</td>
<td>60</td>
</tr>
<tr>
<td>2</td>
<td>117</td>
<td>91</td>
<td>44</td>
</tr>
<tr>
<td>4</td>
<td>117</td>
<td>90</td>
<td>39</td>
</tr>
<tr>
<td>8</td>
<td>113</td>
<td>69</td>
<td>29</td>
</tr>
</tbody>
</table>

It may be clear that 17α-trenbolone is not stable, not even at 4°C. The ampoules should be stored in the freezer, just like solutions prepared from the ampoules. It is also advisable to keep ampoules and solutions of 17α-trenbolone in the dark as much as possible because the chemical is sensitive to light.