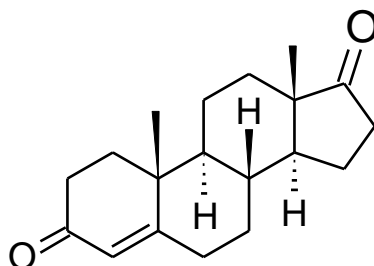


## Compound Data Sheet



<b>Name</b>	Androst-4-ene-3,17-dione
<b>Synonym(s)</b>	17-Ketotestosterone, 4-Androstene-3,17-dione
<b>Epichem Item #</b>	EPL-DV2 Batch 1
<b>CAS #</b>	63-05-8
<b>Molecular Formula</b>	C <sub>19</sub> H <sub>26</sub> O <sub>2</sub>
<b>Molecular Weight</b>	286.42 g/mol
<b>Appearance</b>	White solid
<b>Melting Point</b>	170.8-172.9°C
<b>Purity*</b>	98.1% at 242nm by HPLC (assuming all components detected with the same response factor).
	No impurities detected by <sup>1</sup> H NMR analysis.
	LC/MS: [M+H] <sup>+</sup> = 287.2
	IR v <sub>max</sub> cm <sup>-1</sup> 1659(s), 1732(s)
<b>Date of Manufacture</b>	3 April 2019
<b>Storage Requirements</b>	Protect from heat, light and moisture.
<b>Special Precautions</b>	<b>This compound is for laboratory use only. Its toxicological properties may not have been fully established. It should be handled only by suitably qualified personnel.</b>
<b>Date of Shipment</b>	TBA
	This certificate is valid for one year from the date of shipment provided the substance is stored under the recommended conditions.
<b>Retest Date</b>	TBA (Proper Storage and Handling Required)

Product Reviewed By:

James Rixson, PhD  
Head of Production

Product Released By:

Carol Worth, PhD  
Quality Manager  
Release Date: 11 February 2022

## I. Identity

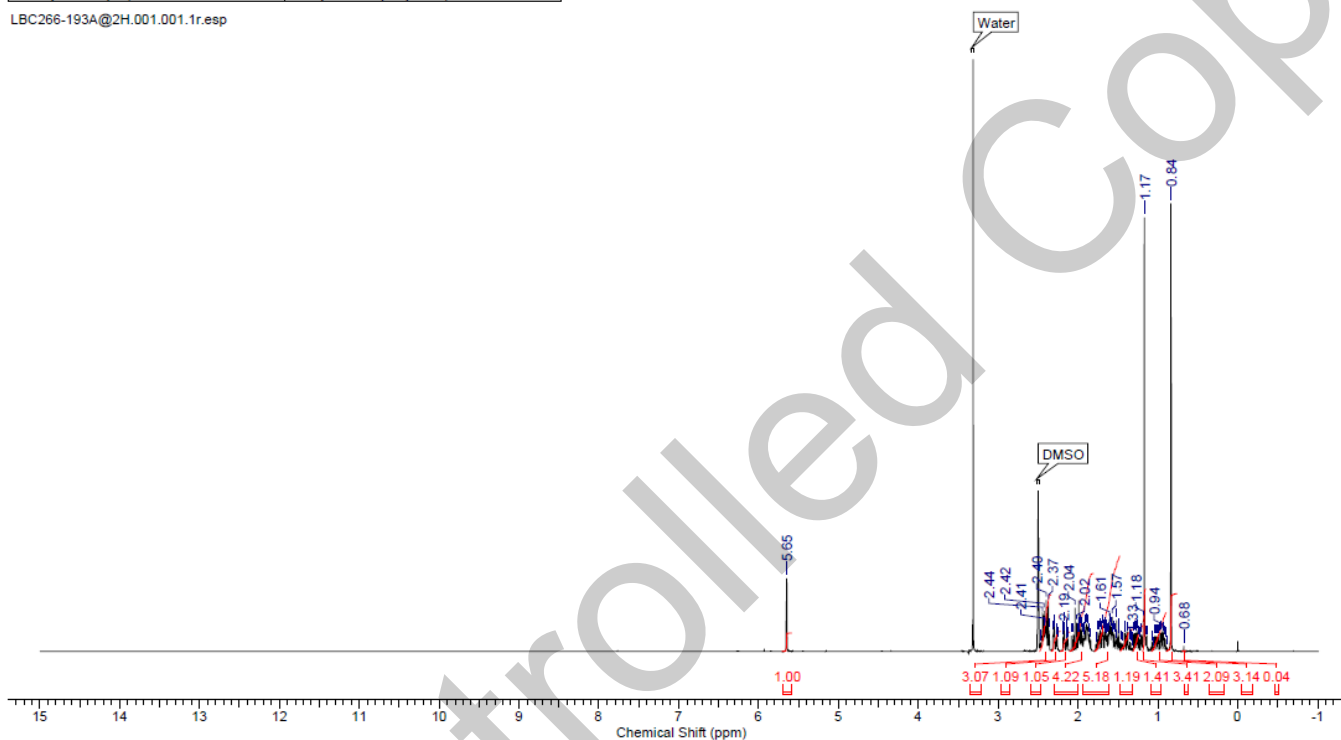
The identity of this product was established using the following analyses:

### Ia. <sup>1</sup>H NMR Spectrum

Conditions: 400 MHz, DMSO-d<sub>6</sub>  
<sup>1</sup>H NMR spectrum consistent with chemical structure.

Acquisition Time (sec)	3.7547	Comment	LBC266-193A@2H 1H DMSO (E:\data\external\epichem) cyqoh 4			
Date	19 Jun 2019 17:31:44	Date Stamp	19 Jun 2019 17:31:44			
File Name	\naphthalene\company\NMR files\LBC266-193A@2H\1\data\111r		Frequency (MHz)	400.13		
Nucleus	1H	Number of Transients	8	Origin	spect	
Owner	nmr	Points Count	32768	Original Points Count	24038	
SW(cyclical) (Hz)	6402.05	Solvent	DMSO-d6	Pulse Sequence	zg	
Sweep Width (Hz)	6401.85	Temperature (degree C)	24.996	Receiver Gain	144.00	
			Spectrum Offset (Hz)	2797.6528	Spectrum Type	STANDARD

LBC266-193A@2H.001.001.1r.esp

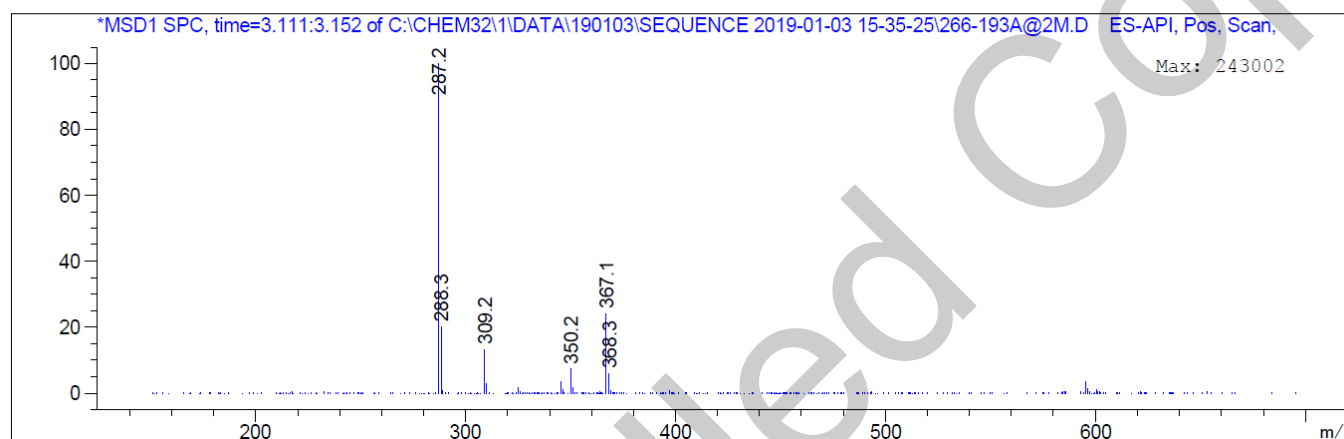


## Ib. Mass Spectrum

The mass spectrum of this material was analysed by Liquid Chromatography Mass Spectroscopy (LCMS) using in-house EM005.WI08.

Method: ACN/water gradient (+ 0.1% formic acid).  
ZORBAX SB-C8, 4.6 x 30 mm, 3.5 micron.

Retention Time (MS)	MS Area	Mol. Weight or Ion
3.129	2223576	367.10 I
		309.20 I
		288.25 I
		287.20 I

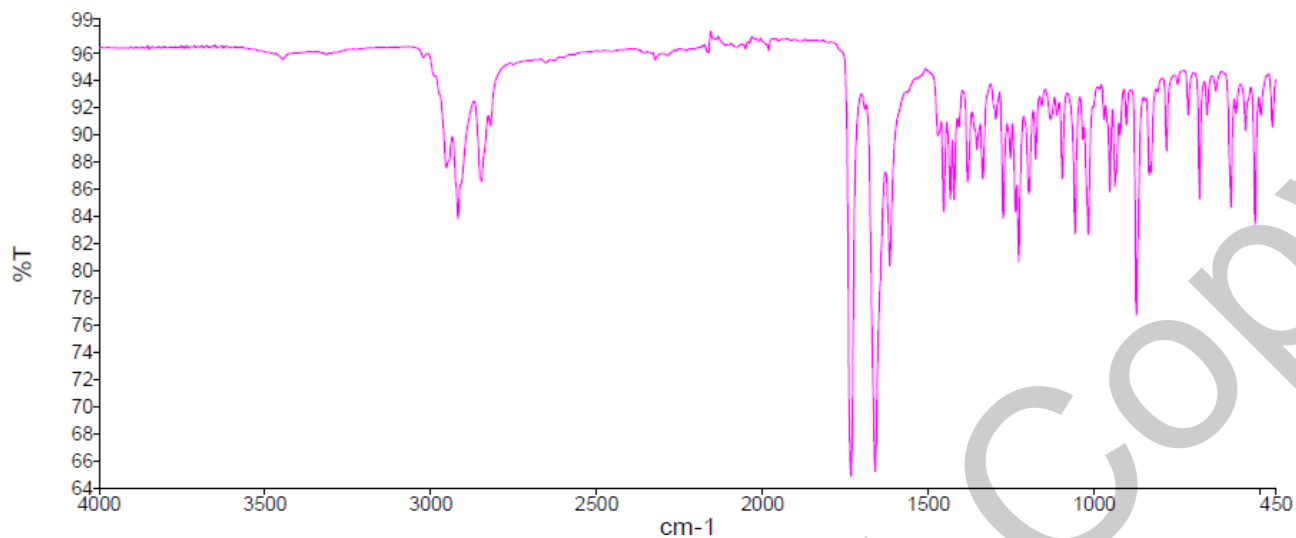


Theoretical value: 287.2 [M+H]<sup>+</sup>.

The signal of the Mass Spectrum is consistent with the theoretical value and its interpretation is consistent with the structural formula.

### Ic. IR Spectrum

The infra-red spectrum of this material was analysed by Fourier-Transform Infrared Spectroscopy (FTIR) using in-house EM005.WI09.



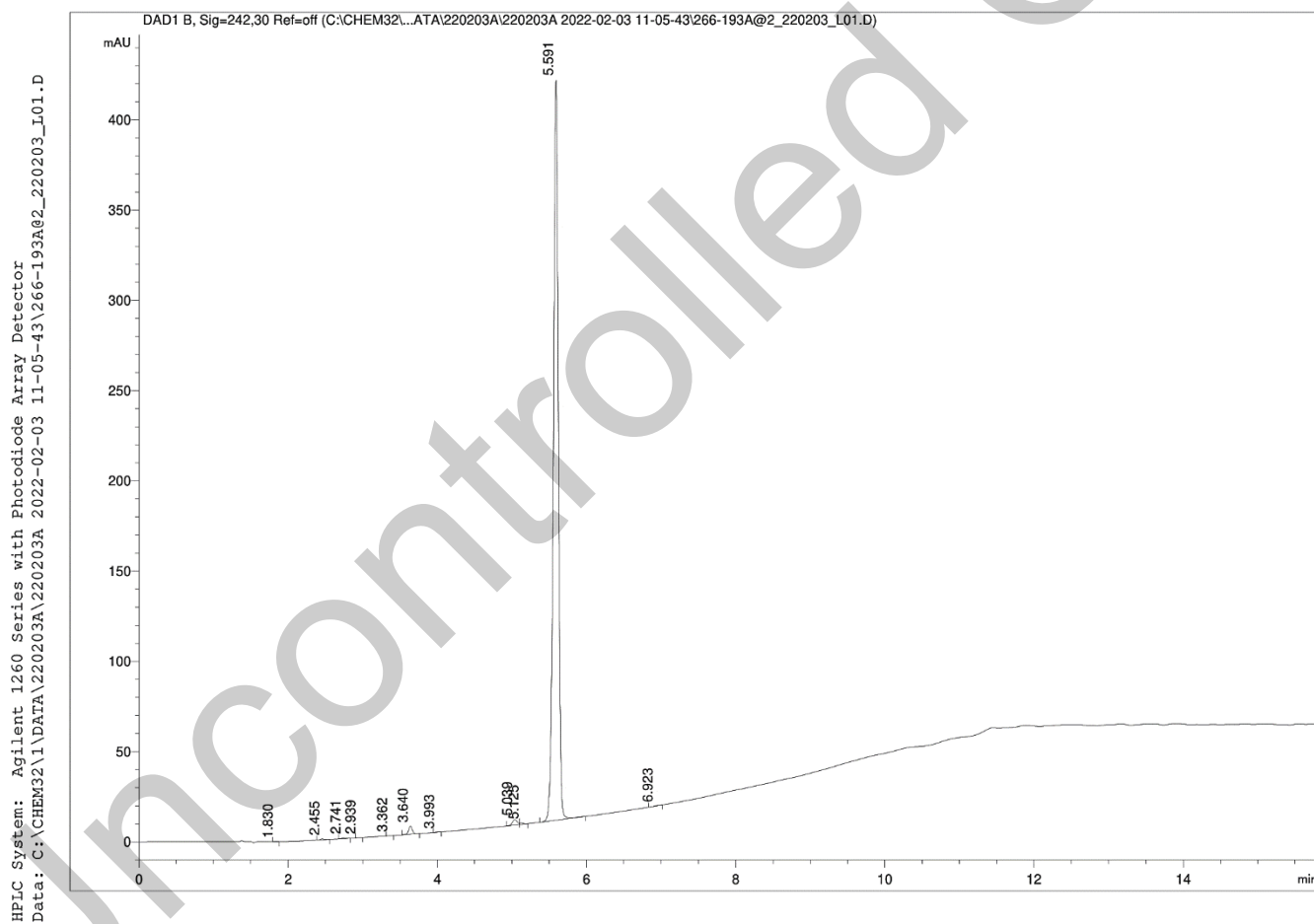
The interpretation of the signals of the Fourier-Transform Infrared Spectrum is consistent with the structural formula.

## II. Purity

The purity of this material was analysed by high performance liquid chromatography (HPLC) using in-house EM005.WI07.

### HPLC Conditions:

Column	Conditions				Detector	Injector
Agilent Zorbax SB-C18 4.6 x 250mm 5 micron	25°C				DAD 242nm	Auto 1.0 µL 1.2 mg/mL in 100% acetonitrile (NO MODIFIERS)
	Time (min)	% Line A (Water + 0.1% (v/v) TFA)	% Line B (Acetonitrile + 0.1% (v/v) TFA)	Flow rate (mL/min)		
	0.00	50	50	1.5		
	9.00	5	95	1.5		
	14.00	5	95	1.5		
	15.00	50	50	1.5		
	20.70	50	50	1.5		



### Area Percent Report – Sorted by Signal

Peak Number	Retention Time (rounded)	Area	Area % (rounded)
1	1.83	0.05	0.00
2	2.45	1.70	0.09
3	2.74	1.86	0.10
4	2.94	0.13	0.01
5	3.36	0.13	0.01
6	3.64	15.74	0.82
7	3.99	0.15	0.01
8	5.04	13.77	0.72
9	5.12	2.73	0.14
10	5.59	1878.24	98.07
11	6.92	0.71	0.04
Totals			100 (rounded)

For the calculation the system peaks were ignored. The content of the analyte was determined as a ratio of the peak area of the analyte and the cumulative areas of the purities, added up to 100%.

#### Results:

Average 98.1% (average of duplicate runs)