

EXPERT RESEARCH PROTOCOL

from **08/22/2015**

Code: 15-08-20-1 (107)
Customer:
Number of samples: Qualitative analysis of the sample, determination of purity
Methods: Agilent 1200, High-performance liquid chromatography (HPLC);
Column: Zorbax SB-C18 150 mm×2.1 mm, 3 mkm;
Detector – DAD, wavelength – 340 nm;
Detector – MSD, ionization method APCI Positive/Negative, SCAN (100 - 500 m/z)
Number of samples: 1
Subject: Trenbolone Enanthate

The solvent for the sample: Propanol/Chloroform (1/1).

Mobile phase: A - MeOH (93%), B - H₂O (7%).

The elution mode is isocratic.

The flow rate through the column: 0.3 ml/min. Thermostat: 300C.

Single quadrupole mass analyzer is used for identification of the chemical elements. The samples were ionized at atmospheric pressure with chemical ionization (APCI) mode with fixed positive and negative ions.

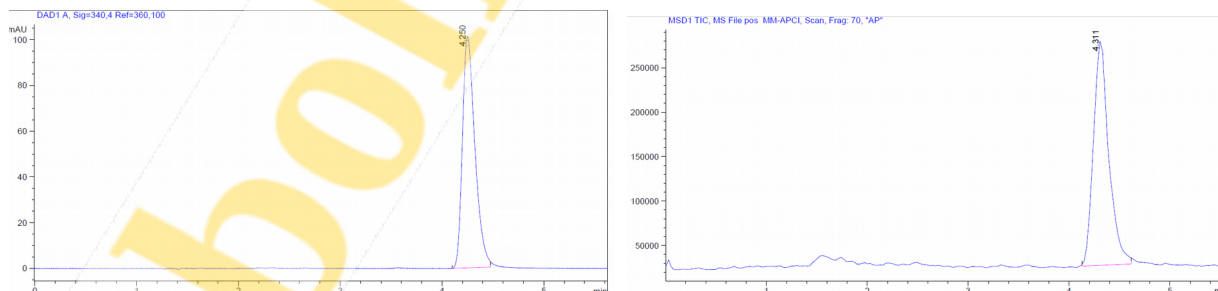


Fig.1. The component output chromatogram of the sample, detector DA, MS in AP

Tbl. 1. The calculation results of the peak areas on Fig. 1

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Area Percent Report
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Sorted By : Signal
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=340,4 Ref=360,100

Peak #	RetTime [min]	Type	Width [min]	Area [mAU*s]	Height [mAU]	Area %
1	4.250	BB	0.1313	860.99628	101.11100	100.0000
Totals :				860.99628	101.11100	

Signal 2: MSD1 TIC, MS File

Peak #	RetTime [min]	Type	Width [min]	Area	Height	Area %
1	4.311	BB	0.1617	2.66823e6	2.53433e5	100.0000
Totals :				2.66823e6	2.53433e5	

The analysis results of the received peaks by detector DA are shown in Fig. 2

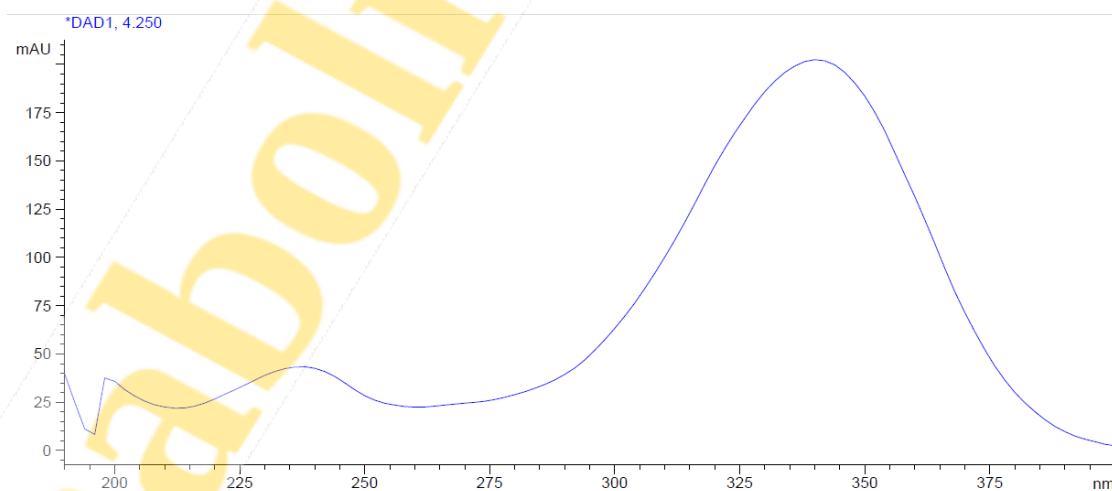


Fig. 2. The analysis of the peak 1, DA detector

The analysis results of the received peaks by detector MS are shown on Fig. 3

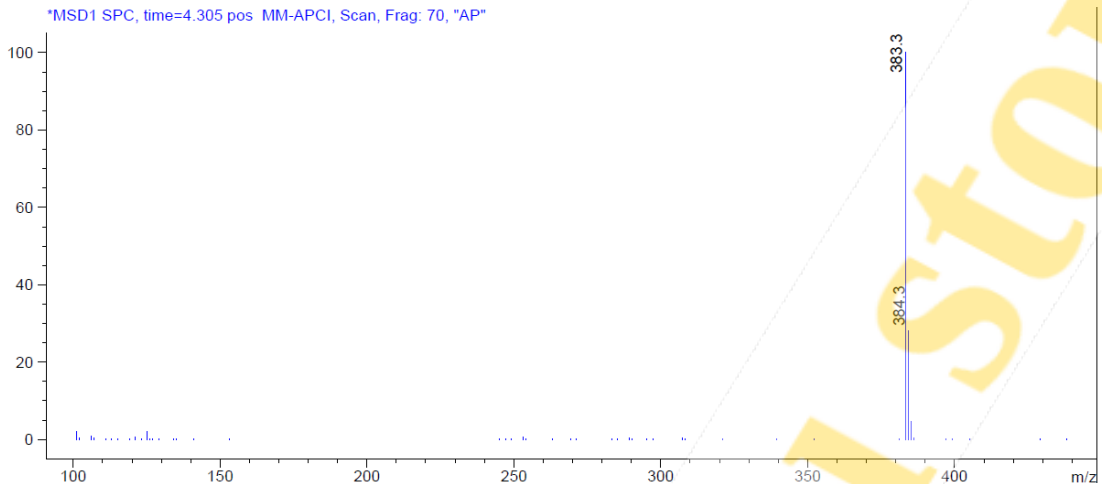


Fig. 3. The analysis of the peak 1, MS detector (mode AP)

The received data of the analytical comparison results of MS detectors with the calculated data on the test substance allow us to state that peak 1 refers to Trenbolone Enanthate (mw 382.5).

The chromatographic purity of Trenbolone Enanthate by MS and DA detectors is 99%.

Remarks:

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