





# Flubromazolam

The Drug Enforcement Administration's Special Testing and Research Laboratory



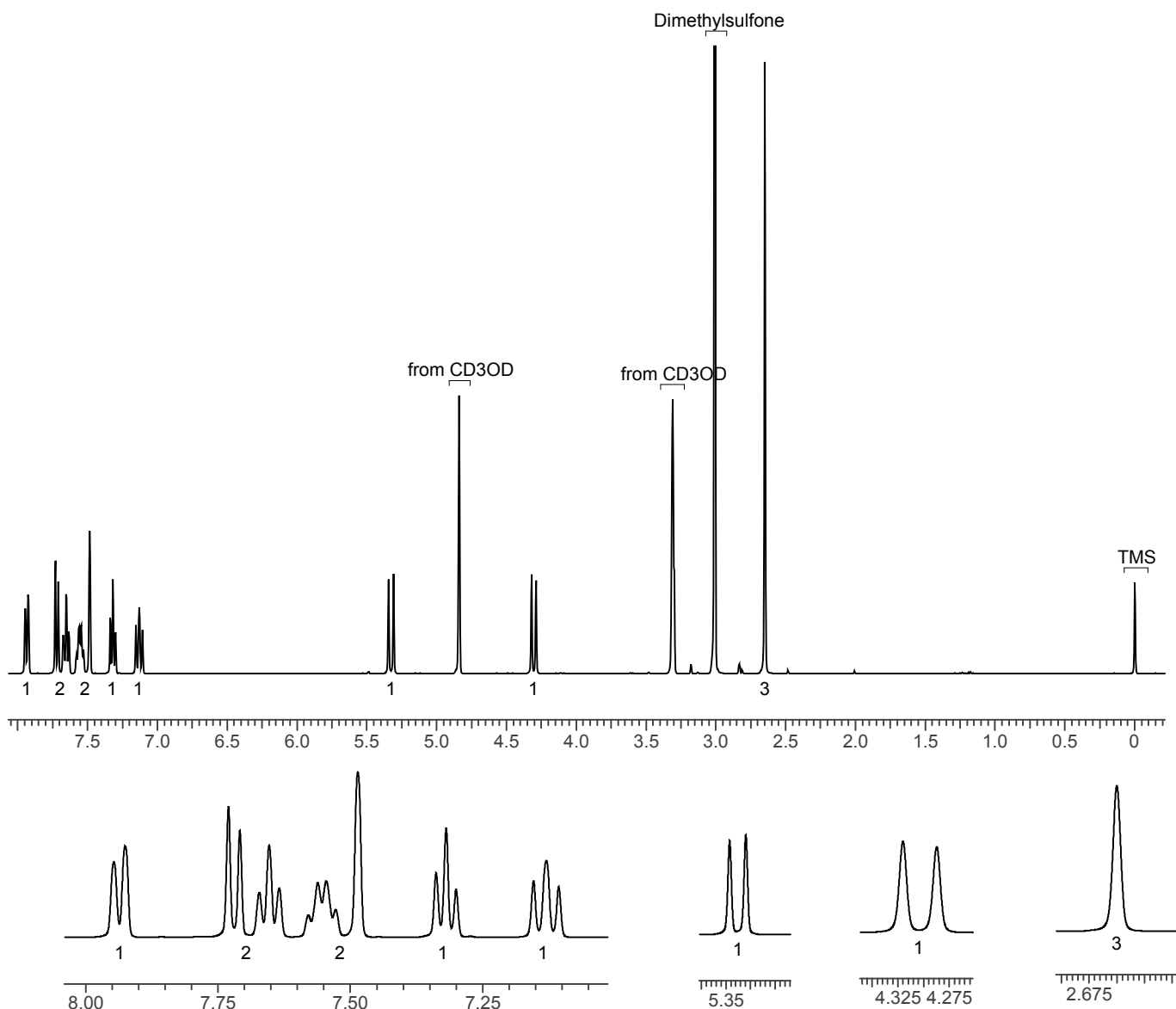
## 3. QUALITATIVE DATA

### 3.1 NUCLEAR MAGNETIC RESONANCE

*Sample Preparation:* Dilute analyte to ~10 mg/mL in deuterated methanol containing TMS for 0 ppm reference and dimethylsulfone as quantitative internal standard.

**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>HNMR: Flubromazolam Lot RM-151203-01; CD<sub>3</sub>OD; 400MHz





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## 3.2 GAS CHROMATOGRAPHY/MASS SPECTROMETRY

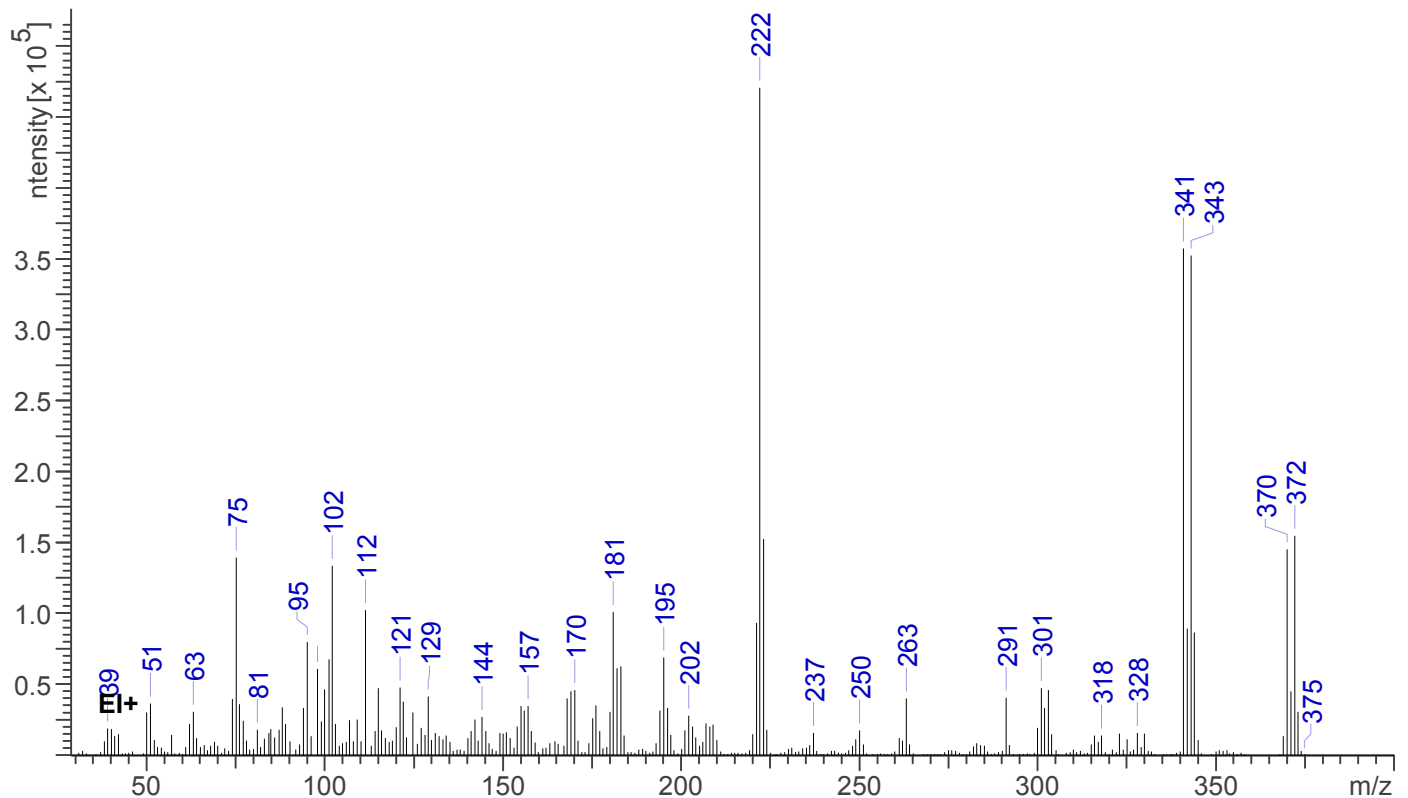
*Sample Preparation:* Dilute analyte ~4 mg/mL in methanol.

**Instrument:** Agilent gas chromatograph operated in split mode with MS detector  
**Column:** DB-5 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: 250°C  
MS Quad: 150°C  
Oven program:  
1) 100°C initial temperature for 1.0 min  
2) Ramp to 280°C at 12 °C/min  
3) Hold final temperature for 9.0 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:** 16.202 min

EI Mass Spectrum: Flubromazolam Lot RM-151203-01

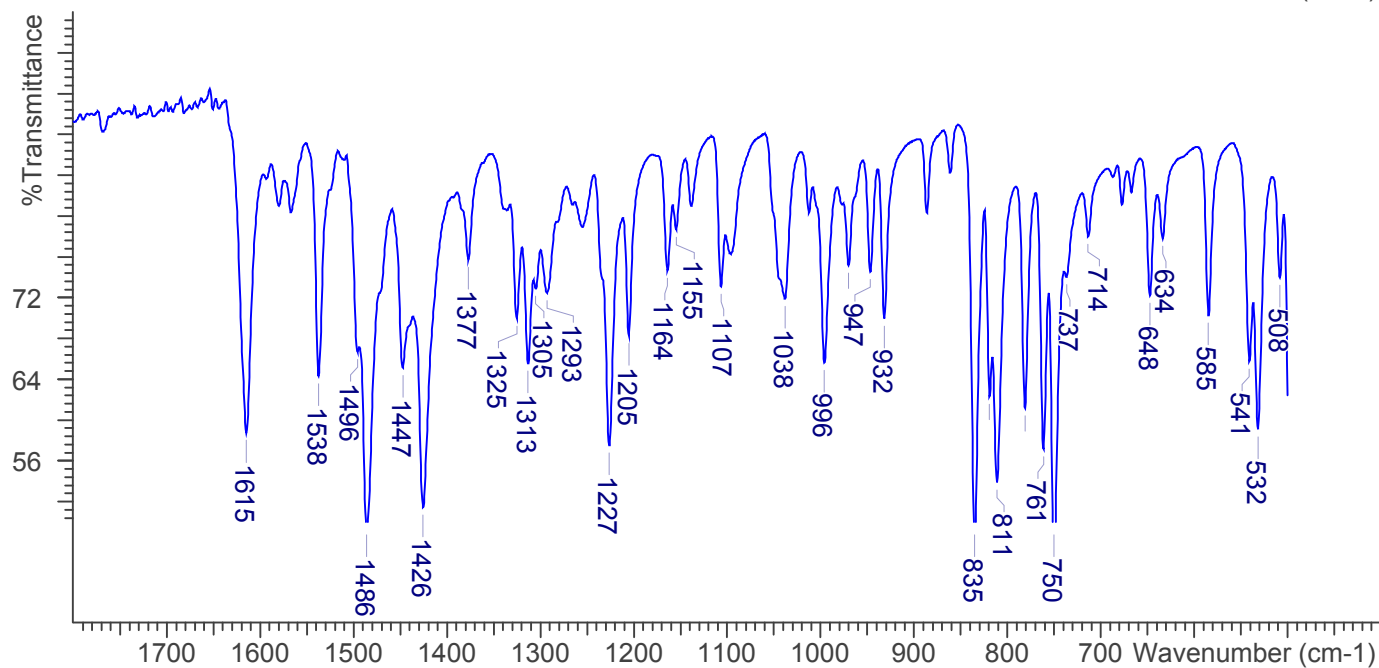
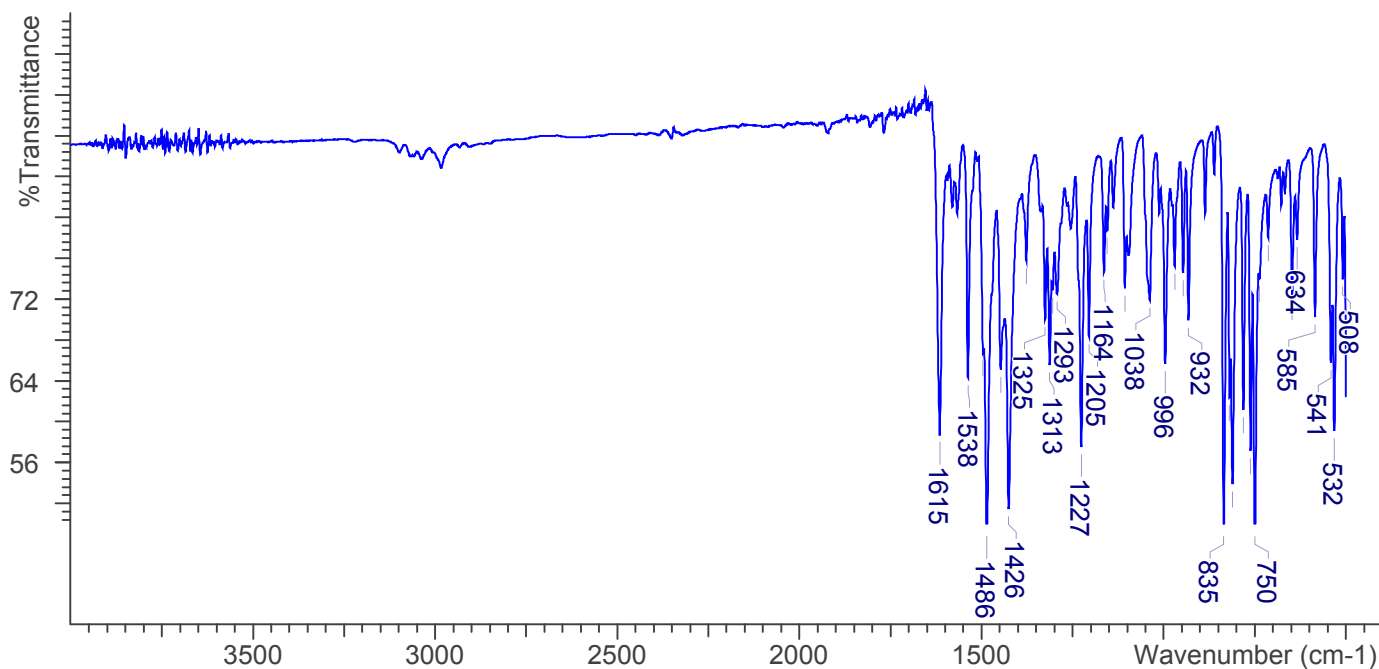


## 3.3 INFRARED SPECTROSCOPY (FTIR)

**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: 1  
 Aperture: 150

FTIR ATR (Diamond, 1 Bounce): Flubromazolam Lot RM-151203-01





## **Flubromazolam**

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



### **4. ADDITIONAL RESOURCES**

[Forendex](#)

[Wikipedia](#)