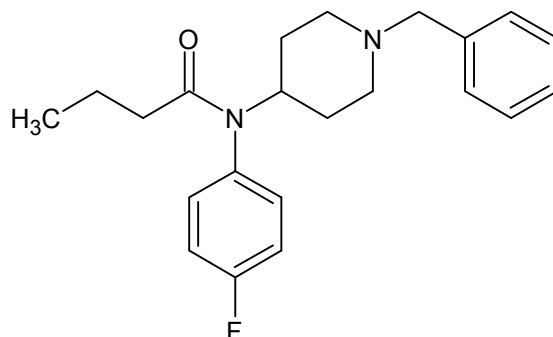




para-fluorobutyryl fentanyl

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



1. GENERAL INFORMATION

| | |
|------------------------------|---|
| IUPAC Name: | <i>N</i> -(4-fluorophenyl)- <i>N</i> -[1-(2-phenylethyl)piperidin-4-yl]butanamide |
| CAS#: | 244195-31-1 |
| Synonyms: | p-FBF, p-fluorobutyryl fentanyl |
| Source: | DEA Reference Material Collection |
| Appearance: | White powder (HCl) |
| UV_{max}(nm): | Not Determined |

2. CHEMICAL AND PHYSICAL DATA

2.1 CHEMICAL DATA

| Form | Chemical Formula | Molecular Weight | Melting Point (°C) |
|------|---|------------------|--------------------|
| Base | C ₂₃ H ₂₉ FN ₂ O | 368.48 | Not Determined |
| HCl | C ₂₃ H ₂₉ FN ₂ O · HCl | 404.94 | Not Determined |



para-fluorobutyryl fentanyl

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3.2 GAS CHROMATOGRAPHY/MASS SPECTROMETRY

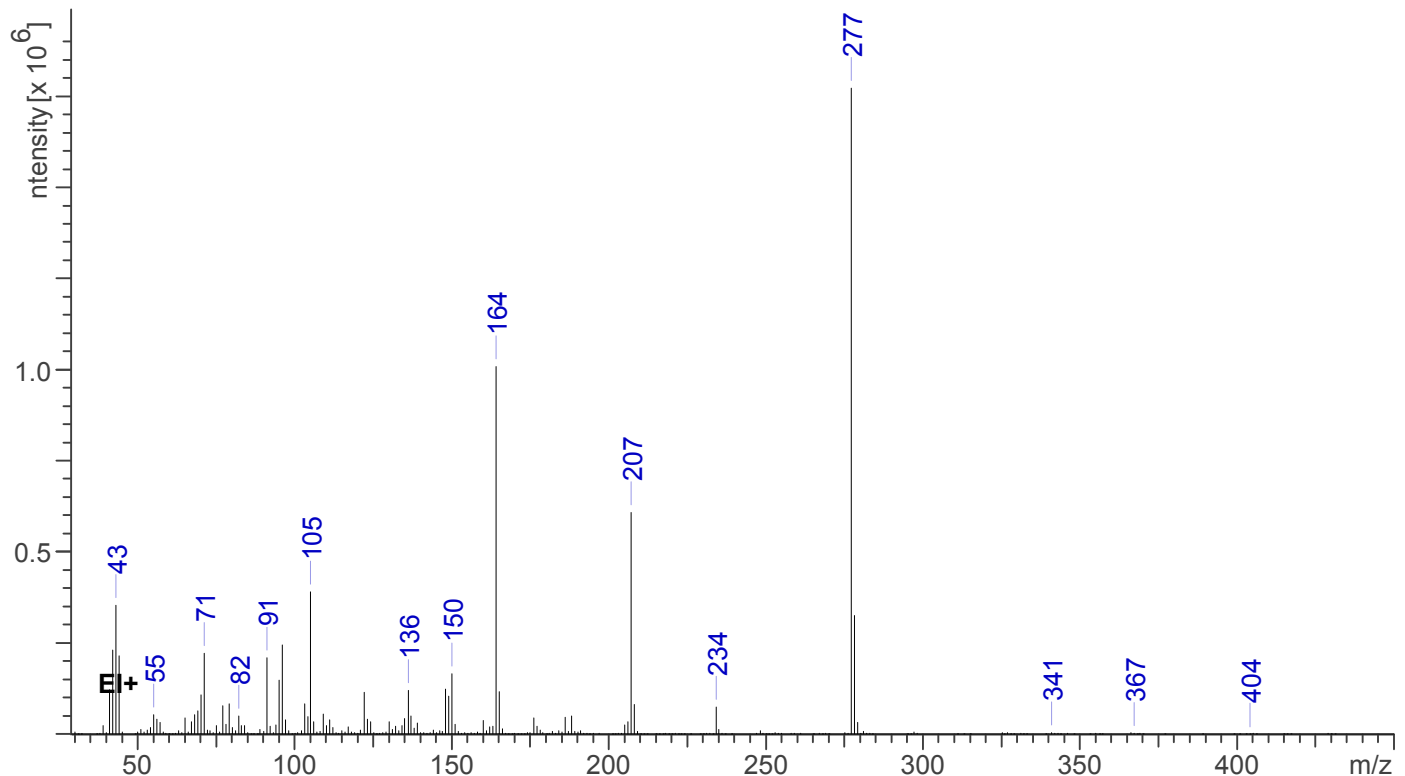
Sample Preparation: Dilute analyte ~2mg/mL MeOH.

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 m
Carrier Gas: Helium at 1.5 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 280°C at 12 °C/min
3) Hold final temperature for 9.0 min

Injection Parameters: Split Ratio = 25:1, 1 µL injected
MS Parameters: Mass scan range: 30-550 amu
Threshold: 100
Tune file: stune.u
Acquisition mode: scan

Retention Time: 17.292 min

EI Mass Spectrum: para-fluorobutyryl fentanyl HCl Lot 0463594-36





para-fluorobutyryl fentanyl

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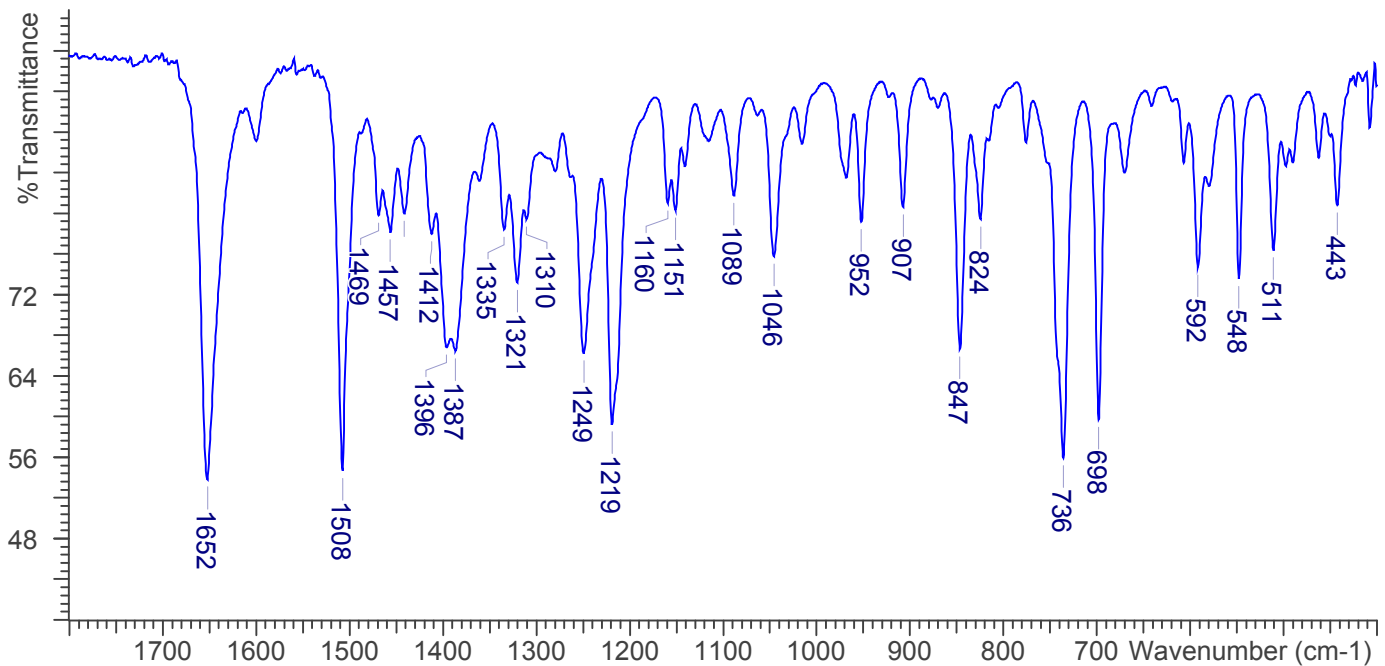
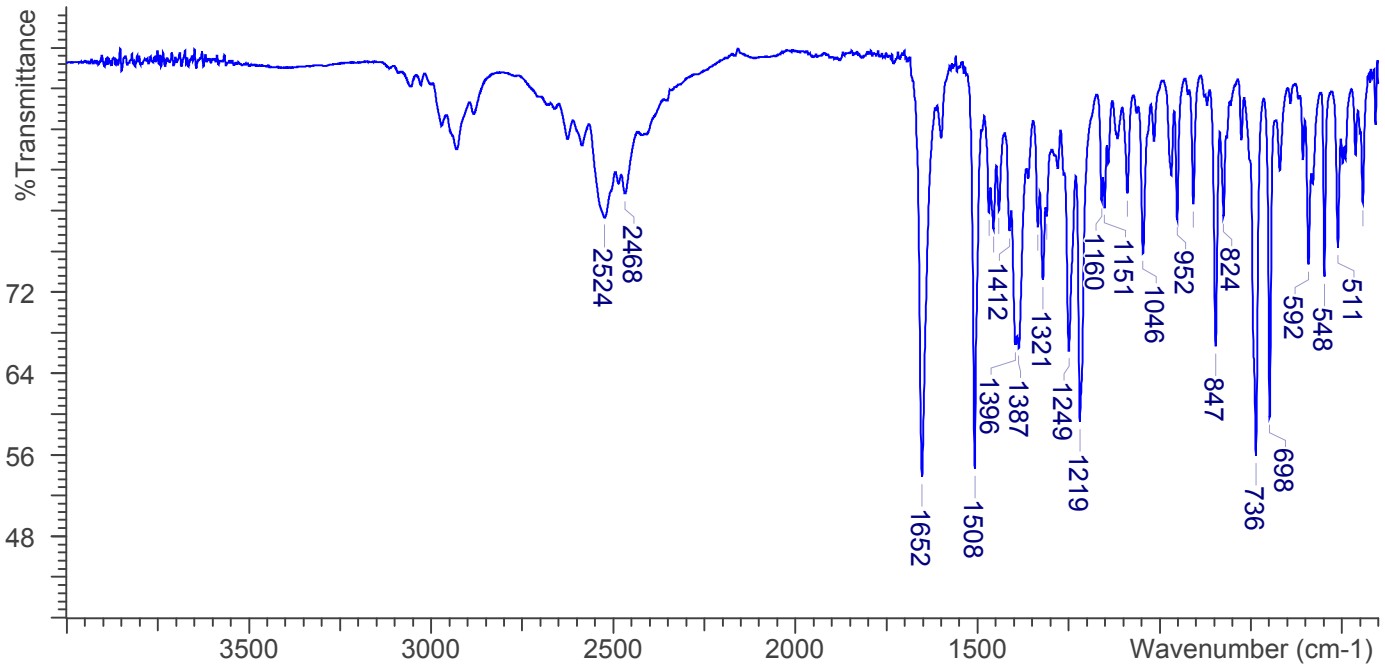


3.3 INFRARED SPECTROSCOPY (FTIR)

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: 1
Aperture: 150

FTIR ATR (Diamond, 1 Bounce): para-Fluorobutyryl fentanyl HCl; Lot 0463594-36





para-fluorobutyryl fentanyl

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4. ADDITIONAL RESOURCES

[Wikipedia](#)