

β-Blockers in Rat Plasma

Conditions

Column: XTerra® MS C₁₈ 4.6 x 20 mm, 2.5 μm
 Part Number: 186001889
 Mobile Phase A: 0.1% TFA in H₂O
 Mobile Phase B: ACN
 Gradient:

Time (min)	%A	%B
0.0	100	0
4.0	20	80

 Flow rate: 3.0 mL/min
 Injection Volume: 20 μL
 Sample Concentration: 0.1 mg/mL of atenolol
 0.05 mg/mL of pindolol
 0.1 mg/mL of metoprolol
 Temperature: Ambient
 Detection: UV @ 220 nm
 Instrument: Alliance® 2695, 2996 PDA

Protein Precipitation Procedure:

Analytes*: Atenolol (10 mg/mL in MeOH)
 Pindolol (5 mg/mL in MeOH/H₂O)
 Metoprolol (10 mg/mL in MeOH)
 *prepared in strong conc. to spike into plasma

Spiked Plasma Sample:

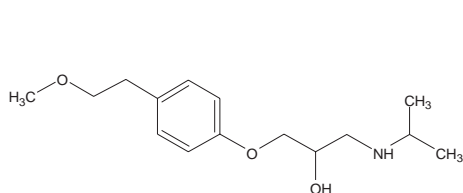
50 μL of Atenolol
 50 μL of Metoprolol
 50 μL of Pindolol
 4750 μL of Rat Plasma
 100 μL of H₃PO₄
 5000 μL total sample volume

Protein Precipitation:

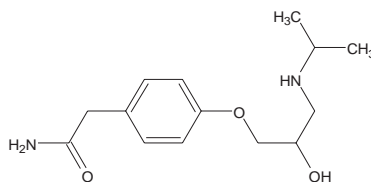
- Multiple samples prepared from 5000 μL spiked plasma
- 350 μL of Spiked Plasma sample
- 1000 μL of acetonitrile
- 1350 μL total sample volume
- Samples were centrifuged at 3000 RPM for 30 minutes
- Supernatant transferred to culture tube and evaporated
- Sample reconstituted in 350 μL water and injected

Compounds

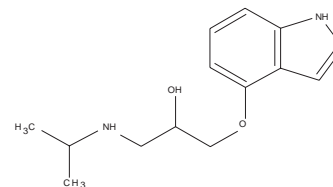
1. Atenolol
2. Pindolol
3. Metoprolol



Metoprolol



Atenolol



Pindolol

