HALO: | Fused-Core® Particle Technology

Application Note: 143-B

Separation of Melatonin and Related Compounds on HALO RP-Amide



PEAK IDENTITIES:

- i. Impurity
- 1. Serotonin
- 2. 5-hydroxy-L-tryptophan
- 3. L-Tryptophan
- 4. N-Acetyl-5-hydroxytryptamine
- 5. Melatonin
- 6. 3-Indoleacetic acid
- 7. Indole

TEST CONDITIONS:

Column: HALO RP-Amide, 4.6 x 150 mm, 2.7 µm Part Number: 92814-707 Mobile Phase: A/B A= 0.1% formic acid in water B= 0.1% formic acid in acetonitrile Gradient: Time(min.) %В 5 0.0 5 1.5 7.0 70 8.5 95 Flow Rate: 1.5 mL/min. Pressure: 273 bar Temperature: 35°C Injection Volume: 2.0 µL Sample Solvent: methanol Detection: UV 280 nm, VWD Response Time: 0.02 sec. Data rate: 25 Hz Flow Cell: 2.5 µL semi-micro LC System: Shimadzu Prominence UFLC XR ECV: ~14 uL

STRUCTURES:





N-Acetyl-5-hydroxytryptamine

CH



5-Hydroxy-L-tryptophan



L-Tryptophan





3-Indoleacetic acid



Indole

Serotonin and melatonin are bioactive amines and are found in plant and animal tissues. In this application a mixture containing serotonin, melatonin and related amine compounds is well separated in less than 10 minutes using a HALO RP-Amide column. The gradient may be adjusted to accommodate possible interfering peaks from sample matrices.



FOR MORE INFORMATION OR TO PLACE AN ORDER, CONTACT:

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