Brain tissue levels of catecholamines and indoleamines reflect the functional state of central nervous system ascending neural pathways. HPLC analysis of these aminergic neurotransmitters and their metabolites are best conducted using ion-pair reversed-phase separations, combined with electrochemical detection. The separation shown, illustrates the rapid analysis of these neurochemicals in mouse brain homogenates using a smaller particle, highly stable, column-packing material (Agilent ZORBAX SB-C8, 3.5 µm).

**Biogenic Amines/Catecholamines**

**Application**

Biochemical

Robert Ricker

**Highlights**

- Rapid and selective analysis of neurochemicals in tissue homogenates are completed in less than 10 minutes per sample, using highly efficient columns.

- Samples are directly injected as perchloric acid (0.1N) extracts. - No sample workup. (For tissue prep, see 1).

- Highly-Stable Agilent ZORBAX SB-C8 columns exhibit unmatched column lifetime, allowing thousands of samples per column.

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**Conditions:**

LC: HP1090
Column: ZORBAX SB-C8 Rapid Resolution, 4.6 x 75 mm (3.5µm) Agilent P/N: 866953-906
Mobile Phase: 0.14 M sodium acetate / 20 mM EDTA / 0.75 mM octyl sulfonate / 9% methanol, pH 3.5
Electrochemical Detec: HP1049A, 0.75V vs Ag/AgCl Flow: 1.5 mL / min.; 26°C; Inj. Vol: 20µL (2 µg tissue samples)

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