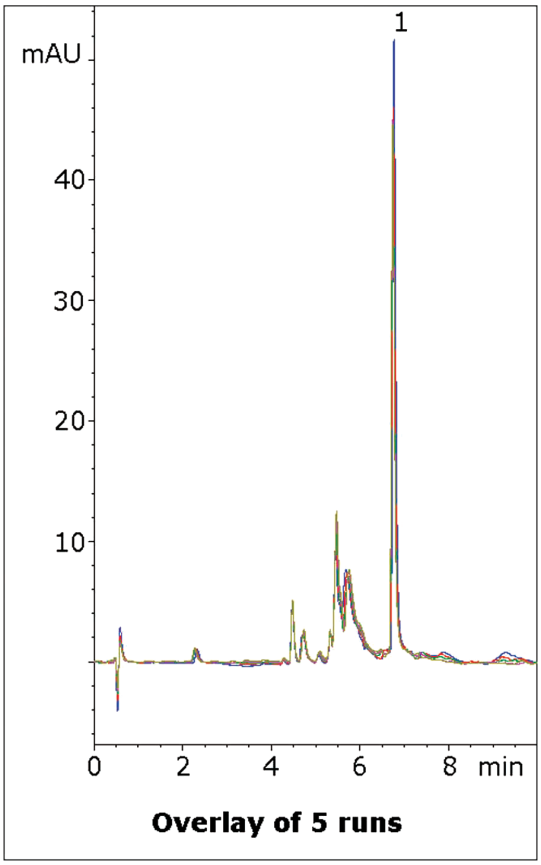
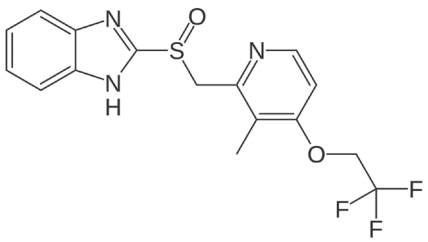
Lansoprazole Capsule

Separation from matrix peaks





Lansoprazole

Note: Lansoprazole is a proton-pump inhibitor used for acid reducing effects. It is available over-the-counter by Novartis under trade name Prevacid, as well as generic versions.

Method Conditions

Column: **Cogent Bidentate C18™**, 2.2µm, 120Å

Catalog No.: 40218-05P-2

Dimensions: 2.1 x 50 mm

Solvents: A: DI H_2O / 0.1% formic acid (v/v)
B: Acetonitrile / 0.1% formic acid (v/v)

Gradient:

time (min.)	%B
0	10
1	10
6	70
7	10

Injection vol.: 0.2 microL

Flow rate: 0.4mL/min

Detection: UV 285 nm

Sample: 15mg strength lansoprazole capsule contents were ground and added to a 25mL volumetric flask. A portion of 50/50 solvent A/solvent B was added and the flask was sonicated 10 min. Then it was diluted to mark and mixed. A portion was filtered through a 0.45µm nylon syringe filter (MicroSolv Tech Corp.).

Peak: 1. Lansoprazole

t_0: 0.5 min

Discussion

Lansoprazole is separated from several matrix components in this simple assay method. The compound is retained using the Bidentate C18 column, which was found to give an excellent peak shape for this API. The method demonstrates the capabilities of the column for analysis of real formulations. The mobile phase is LC-MS compatible so the method could be applied to more complex samples such as plasma.

Five runs are shown in the figure to illustrate the repeatability of the data.

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