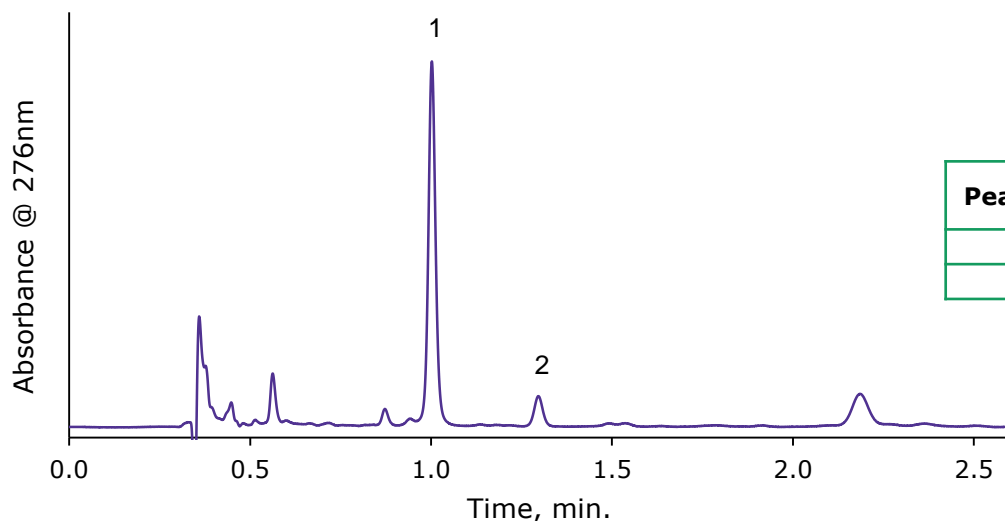




UHPLC Analysis of Patulin and HMF on Ascentis® Express Biphenyl, 2.7 µm



Peak Number	Compound
1	5-(hydroxymethyl) furfural
2	Patulin

Conditions:

column: Ascentis® Express Biphenyl, 10 cm x 2.1 mm I.D., 2.7 µm

mobile phase: [A] Water (0.1% v/v acetic acid); [B] Acetonitrile (0.1% v/v acetic acid)

gradient: 5% B to 90% B in 2.6 min

flow rate: 0.6 mL/min

column temp.: 40 °C

detector: UV, 276 nm

injection: 1 µL

sample: Apple juice spiked with 5-(hydroxymethyl) furfural and 50 ng/mL Patulin

Description:

Patulin is a mycotoxin that can be present in many fruits, particularly apples and the food products that are made from them. Patulin is produced by mold and can cause negative health effects when ingested. For this reason, the FDA has a limit of 50 µg/kg of patulin in food products. 5-(hydroxymethyl) furfural (HMF) is formed by the dehydration of some sugars, and can be used as an indication of deterioration of quality. The Ascentis® Express Biphenyl column is ideal for separating such compounds, as seen in this application with a run time of under 1.5 minutes and excellent peak shape and resolution.

Materials:

Product Part Number	Description
64065-U	Ascentis® Express Biphenyl, 10 cm x 2.1 mm I.D., 2.7 µm
53407	5-(hydroxymethyl) furfural
P1639	Patulin
270733	Water
34851	Acetonitrile
320099	Acetic acid

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