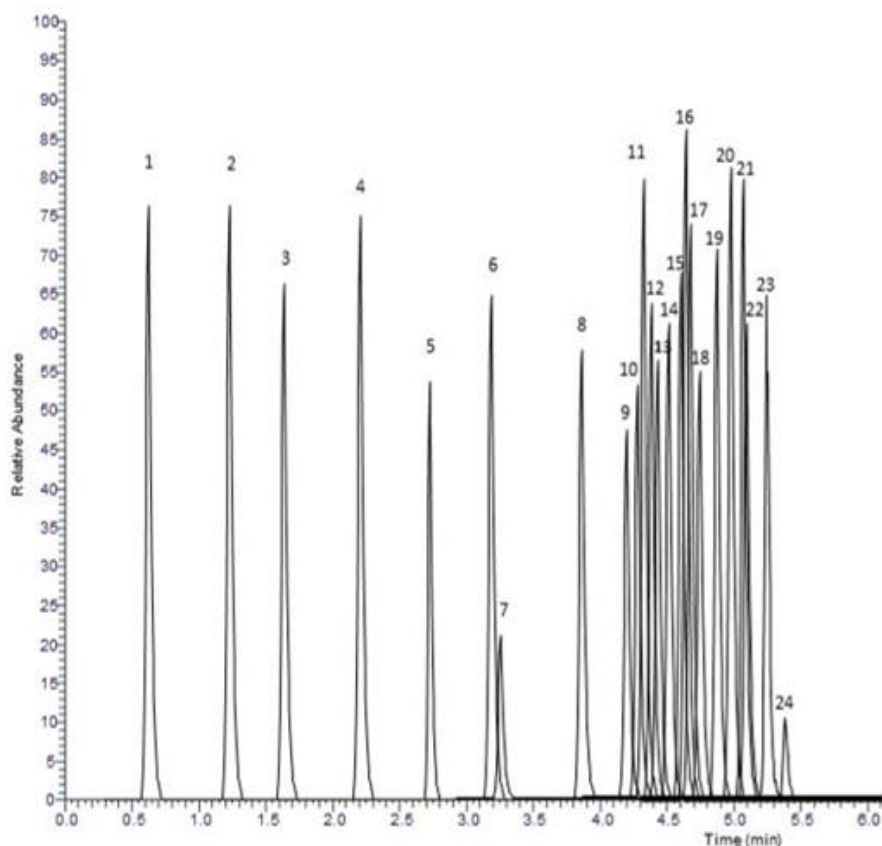




UHPLC/MS Analysis of Mycotoxins on Ascentis® Express F5, 2 µm



Peak Number	Compound	Concentration µg/mL
1	Nivalenol	5
2	Deoxynivalenol	5
3	Deoxynivalenol-3-glucoside	5
4	Fusarenon X	5
5	Neosolaniol	5
6	15-Acetyldeoxynivalenol	5
7	3-Acetyldeoxynivalenol	5
8	Glitoxin	5
9	Aflatoxin G2	5
10	Aflatoxin M1	5
11	Aflatoxin G1	5
12	Aflatoxin B2	5
13	HT-2 + Na	5
14	Diacetoxyscirpenol	5
15	Aflatoxin B1	5
16	Ochratoxin A	5
17	T-2 + Na	5
18	Ochratoxin B	5
19	Citrinin	5
20	Zearalenone	5
21	Patulin + MeOH	5
22	Fumonisin B1	5
23	Fumonisin B3	5
24	Fumonisin B2	5

Conditions:

column: Ascentis® Express F5, 5 cm x 2.1 mm I.D., 2 µm

mobile phase: [A] 2 mM Ammonium formate in Water (0.1% (v/v) Formic acid); [B] 2 mM Ammonium formate in Methanol (0.1% (v/v) Formic acid)

gradient: 15% B to 25% B in 1 min; 25% B to 40% B in 1 min; 40% B to 41% B in 0.5 min; 41% B to 100% B in 2 min; hold at 100% B for 1 min

flow rate: 0.4 mL/min

column temp.: 40 °C

detector: MSD, ESI-(+)

injection: 1 µL

sample: Mycotoxins, 5 µg/mL, 95:5 water:methanol



Description:

Mycotoxins are secondary metabolites produced by fungi that are toxic to humans and other animals. A single species of mold can produce several different mycotoxins of varying toxicities. Some of the most common mycotoxins are included in this analysis, including aflatoxin, ochratoxin, and patulin. These can be problematic when exposed to humans. Common routes of exposure include fungal infections of crops and mold outbreaks in buildings. It is useful to be able to separate, identify, and quantify these toxins to ensure uncontaminated food sources and a healthy environment. The Ascentis® Express F5 is ideal for LC-MS analysis of these mycotoxins, and is able to separate 24 compounds in 5.5 minutes.

Materials:

Product Part Number	Description
50859-U	Ascentis® Express F5, 5 cm x 2.1 mm I.D., 2 µm
34131	Nivalenol solution, 100 µg/mL, Acetonitrile
34124	Deoxynivalenol solution, 100 µg/mL, Acetonitrile
32911	Deoxynivalenol-3-glucoside solution, 50 µg/mL, Acetonitrile
34130	Fusarenon X solution, 100 µg/mL, Acetonitrile
32932	Neosolaniol
32928	15-Acetyldeoxynivalenol
32927	3-Acetyldeoxynivalenol
371715	Gliotoxin, from <i>Gladiocladium fimbriatum</i>
CRM46304	Aflatoxin Mix, Varied concentration, Methanol
A6428	Aflatoxin M1, from <i>Aspergillus flavus</i>
SML1846	Ochratoxin A Ready Made Solution, 1 mg/mL, DMSO
32411	Ochratoxin B Solution, 10 µg/mL, Acetonitrile
35410	Citrinin solution, 100 µg/mL, Acetonitrile
SBR00020	Zearalenone Ready Made Solution, 1 mg/mL, DMSO
P1639	Patulin
SML1286	Fumonisin B1 Ready Made Solution, 1 mg/mL, DMSO
32606	Fumonisin B3 solution, 50 µg/mL, 50:50 Acetonitrile:Water
F7817	Fumonisin B2 solution, 1.4 mM, DMSO
900682	Water for UHPLC/MS
900688	Methanol for UHPLC/MS
5.33002	Formic acid for LC/MS
70221	Ammonium formate, additive for LC/MS