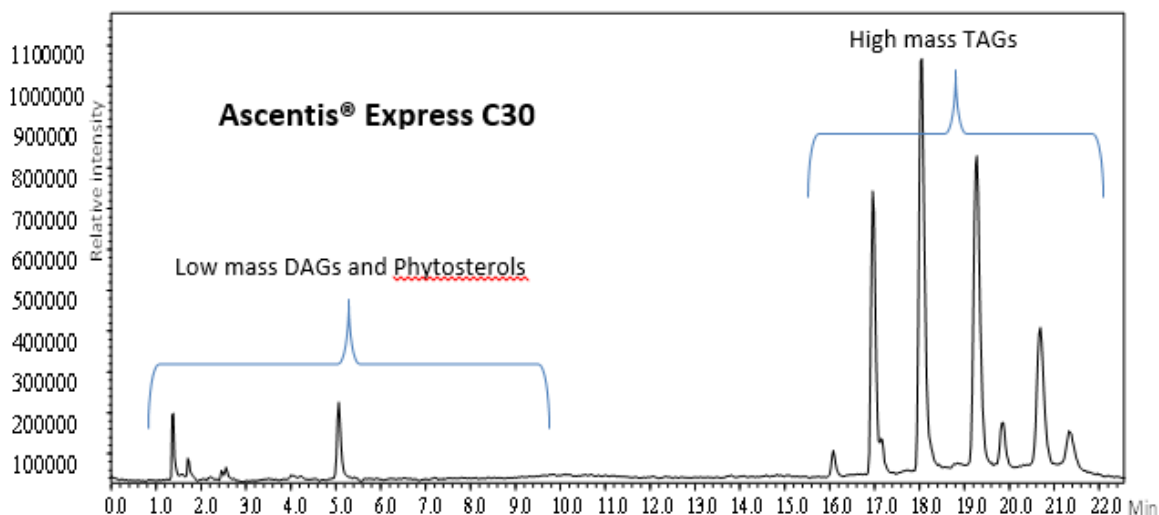
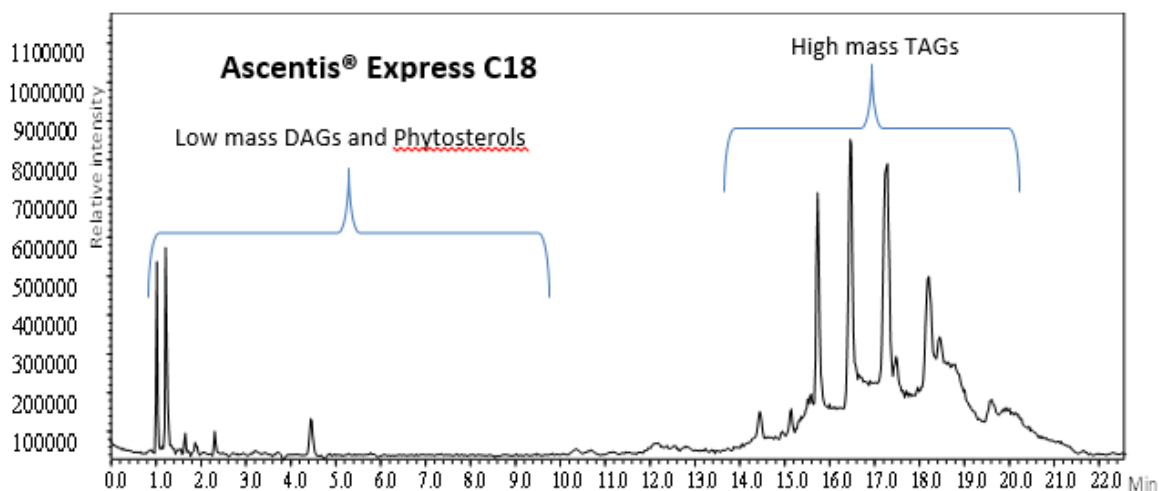




# UHPLC/MS Analysis of Corn Oil on Ascentis® Express C30 Compared to Ascentis® Express C18



## Conditions:

**columns:** Ascentis® Express C18, 15 cm x 2.1 mm I.D., 2.7 µm; Ascentis® Express C30, 15 cm x 2.1 mm I.D., 2.7 µm

**mobile phase:** [A] Methanol; [B] Isopropyl Alcohol (0.1% (v/v) Formic Acid)

**gradient:** Hold at 10% B for 10 min; 10% B to 40% B in 4 min; hold at 40% B for 8 min.; 40% B to 10% B in 0.01 min, hold at 10% B for 2 min

**flow rate:** 0.3 mL/min

**column temp.:** 25 °C

**detector:** MSD, ESI-(+)

**injection:** 2 µL

**sample:** Corn oil, varied concentration, methanol

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Analytical Products



## Description:

Corn oil is a relatively cheap vegetable oil that is commonly used for cooking, with a high smoke point which makes it particularly good for frying. Other uses of corn oil include paint, pharmaceuticals, and biodiesel production. Corn oil consists primarily of long chain fatty acids and esters, which can make it difficult to separate on C18 columns. The 2.7  $\mu\text{m}$  Ascentis<sup>®</sup> Express C30 is ideal for separations involving high molecular weight hydrophobic analytes such as the triglycerides (TAGs) found in corn oil. The increased hydrophobicity of the C30 phase gives it an advantage over C18 in these types of separations, which can be seen in the chromatogram comparison of the two phases.

## Materials:

Product Part Number	Description
53825-U	Ascentis <sup>®</sup> Express C18, 15 cm x 2.1 mm I.D., 2.7 $\mu\text{m}$
577102-U	Ascentis <sup>®</sup> Express C30, 15 cm x 2.1 mm I.D., 2.7 $\mu\text{m}$
900688	Methanol
1.02781	Isopropyl Alcohol
5.33002	Formic Acid
47112-U	Corn Oil