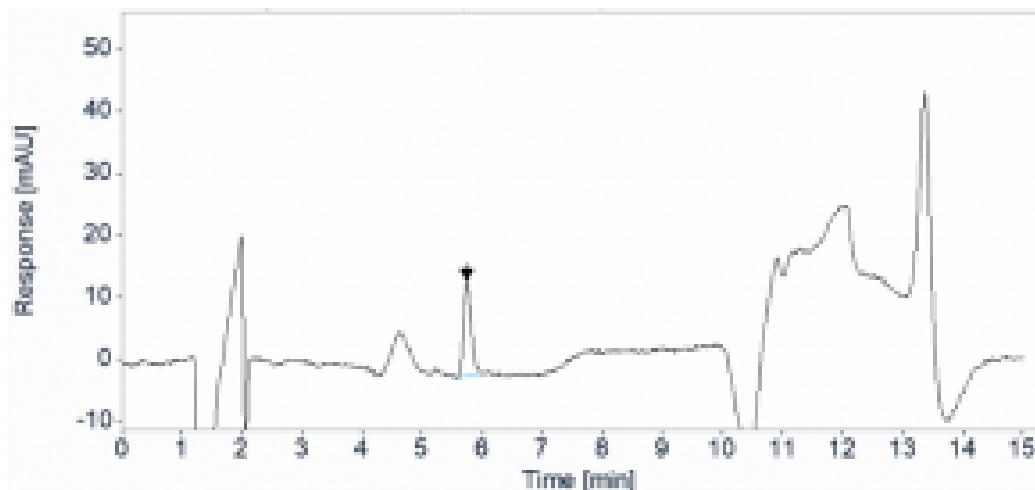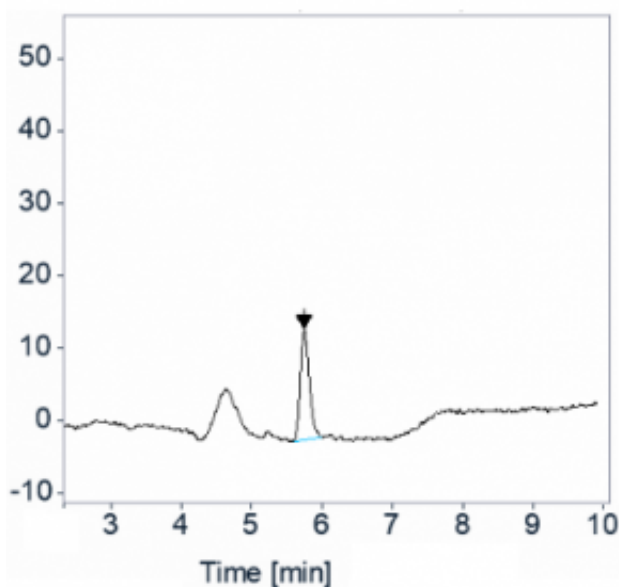# Deoxycholic Acid Assay Analyzed with HPLC – AppNote

A Reliable Method for a Bile Acid

This Deoxycholic Acid Assay produces Run to Run consistency and Precision with Retention Time RSD values of 0.1%. A sensitive HPLC-UV Method that may be used for quantification in raw material and liquid pharmaceutical formulation is presented.

Figure 1.

Full Chromatogram

Figure 2.

Magnified Chromatogram to show peak of interest

Peak:
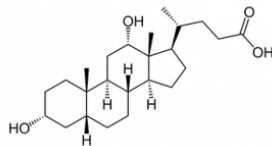
Deoxycholic Acid

Method Conditions:

Column: Cogent Bidentate C18™, 4um, 100Å

Catalog No.: 40018-15P

Dimensions: 4.6mm x 150mm

Mobile Phase:

  A: DI Water

  B: 20:80 Acetonitrile / Buffer *(50mM KH2PO4 pH adjusted to 7.5)*

  C: Acetonitrile

Time *(minutes)*	A	B	C
0	55%	20%	25%
2	55%	20%	25%
2.05	48%	20%	32%
8	48%	20%	32%
8.05	20%	20%	60%
11	20%	20%	60%
11.05	55%	20%	25%
15	55%	20%	25%

Injection vol.: 100μL

Flow rate: 1.0mL / minute

Detection: UV @ 205nm

Column Temperature: 35°C

Sample Preparation: Deoxycholic Acid 50μg / mL in DI Water

Note: Deoxycholic Acid also known as Cholanoic Acid and sometimes sold as Kybella™ or Belkyra™, is one of the secondary bile acids, which are metabolic byproducts of intestinal bacteria and can be used to determine intestinal fat adsorption. Another research application is when a micelle is formed with it, it can used as a mild detergent for the isolation of membrane proteins.

This Method was developed by and is presented courtesy of ARL- Eutech Scientific Services.