SOLUTION FOR BILE ACID ANALYSIS

Why bile acid analysis?

Bile acids are synthesized from cholesterol in the liver hepatocytes. The conversion of cholesterols into bile acids involved various enzymes in modifying cholesterol steroid cores, removing side chains, and conjugating glycine and taurine to form primary bile acids. A large number of microorganisms in the gut can further metabolize bile acids to produce secondary bile acids.

> Changes in the type and content of bile acids can affect the host microbiota distribution, intestinal barrier function, signal transmission, and other biological processes.

What We Do





Utilizing the UPLC-MS/MS platform, Creative Proteomics can well separate a variety of bile acid isomers and isotopically label them as internal standards, thus accurately quanti-fying 70+ bile acids in various biological samples for different detection needs.

Service	Metabolic Pathway	Sample Requirement
Bile Acid Analysis -Synthesis and Metabolism Assay	Bile acid synthesis and metabolism Gut co-metabolism Cholesterol metabolism Blood-brain barrier	Tissue: ≥ 10 mg Cell: ≥ 2×10 ⁶ Blood/plasma/serum: ≥ 20 μL Urine: ≥ 10 μL Feces: ≥ 5 mg DBS: ≥ 20 μL
Bile Acid Precursor Analysis	Bile acid synthesis Blood-brain barrier	Tissue: ≥ 10 mg Cell: ≥ 2×10 ⁶ Blood/plasma/serum: ≥ 50 μL Urine: ≥ 50 μL
Bile Acids (Biocrates Bile Acids Kit)	Cholesterol metabolism Bile acid metabolism	50 μL 30-40 mg

Advantages

Absolute Quantitation

Using external standards for quantification and internal standards for correction, delivering more accurate qualitative and quantitative analyses.

High Sensitivity

The UPLC-MS/MS platform relies on the multiple reaction monitoring (MRM) mode of triple quadrupole (QQQ), capable of detecting samples as low as the pg level.



