

For LabSolutions™ LCMS

LC/MS/MS Method Package for Bile Acids Ver. 2



Ready-to-use method for analysis of 49 Bile Acids

This Method Package allows comprehensive analysis of 49 Bile Acids from plasma, urine and feces.

Bile Acids are essential for cholesterol metabolism and play a key role in absorption of fats in the small intestine. Additionally, they serve as signaling molecules that regulate metabolism. Their concentrations are used as markers of several diseases. Acute and chronic liver failure concern more than 12 million people worldwide, estimated by the World Health Organization, accounting for approximately 2 million deaths per year. Blood enzyme activity test (ALT, AST, etc.) and total bile acids assay (TBA) are widely conducted as examinations for the early diagnosis of liver diseases and liver function evaluation. More recently, monitoring of individual bile acids (IBA) was proposed for deeper pathologies characterization. However, bile acids wide structural diversity, associated with chemical similarities, leads to great challenges to analyze them.

This Method Package was developed to provide users a complete solution to perform routine analysis of selected primary, secondary and conjugates bile acids, in various matrices such as plasma, urine and feces.

Complete Solution from Sample Preparation to Result for Routine Analysis



LC/MS/MS Method Package Bile Acids Ver. 2

- Example pretreatment protocols (including automation) for plasma, urine and feces samples,
- Robust chromatographic conditions for separation of isobaric species within a 10-min acquisition time,
- Optimized MS/MS parameters for all targeted bile acids and their conjugates (up to 3 MRM transitions),
- Optimized MS/MS parameters for 10 commercially available internal standards, covering all classes,
- Ready to use method files for LCMS-8050/8060 and LCMS-8060NX,
- Instruction manual for method installation.

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Complete Solution from Sample Preparation to Result

Select best Sample Pretreatment for your needs

Example pretreatment protocols are detailed in the method package manual, for plasma, urine and feces samples.



Ready-to-use LC/MS/MS Method

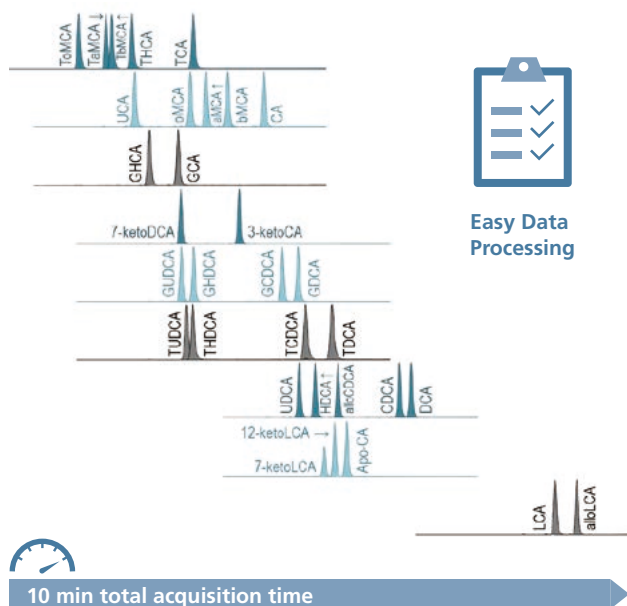
The Method Package can be directly used on Shimadzu UFMS mass spectrometers LCMS-8050/8060 and LCMS-8060NX.



LCMS-8060NX

Easy Data Processing using LabSolutions Insight™

The target compound list can be customized to fit the user's needs. In addition, with LabSolutions Insight the user can easily review the results and quickly extract the necessary information with advanced flagging functions.



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12-Ketodeoxycholic acid	Glycocholic acid	Taurocholic acid-D4
3-Ketocholic acid	Glycocholic acid-D4	Taurodeoxycholic acid
7,12-Diketolithocholic acid	Glycodeoxycholic acid	Taurohyocholic acid
7-Ketodeoxycholic acid	Glycodeoxycholic acid-D4	Taurohydroxycholic acid
7-Ketolithocholic acid	Glychoyocholic acid	Tauroolithocholic acid
Allochenodeoxycholic acid	Glychoyodeoxycholic acid	Tauroolithocholic acid-D4
Allolithocholic acid	Glycolithocholic acid	Tauroursodeoxycholic acid
Apocholic acid	Glycolithocholic acid-D4	Tauro- α -muricholic acid
Chenodeoxycholic acid	Glycoursodeoxycholic acid	Tauro- β -muricholic acid
Chenodeoxycholic acid-D4	Hyodeoxycholic acid	Tauro- ω -muricholic acid
Cholic acid	Lithocholic acid	Ursocholic acid
Cholic acid-D4	Lithocholic acid-D4	Ursodeoxycholic acid
Dehydrocholic acid	Norcholic acid	α -Muricholic acid
Dehydrolithocholic acid	Norursodeoxycholic acid	β -Muricholic acid
Deoxycholic acid	Taurochenodeoxycholic acid	ω -Muricholic acid
Deoxycholic acid-D4	Taurochenodeoxycholic acid-D4	
Glycochenodeoxycholic acid	Taurocholic acid	

Remarks and Precautions

LabSolutions LCMS Ver. 5.99SP2 or later is required.

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