



**Service Code:** BA

**Reference1:** William J. Griffiths and Jan Sjövall, Bile acids: analysis in biological fluids and tissues, *Journal of Lipid Research*, **2010**, 51, 23.

**Summary:** Two-step solvent extraction. Supernatants are combined, dried, and re-suspended for LCMS separation by RPLC and measurements by ESI<sup>-</sup> QQQ MRM methods. Analytes are reported as uM or ug/mg (tissue/feces), and CV's are generally <20%.

**Container:** 2 mL eppendorf-type polypropylene centrifuge tube

**Normal Volume:** Plasma (100 ul); Tissue (50 mgs); Cells (2E7), Feces (50 mg –human; 20 mg-rodent)

**Minimal Volume:** Plasma (50 uL); Tissue (30 mg); Cells (~5E6); Feces (40 mg-human; 20 mg-rodent)

**Special Handling:** If human or primate, note any known presence of infectious agents

**Sample Collection:** Please see our detailed sample collection protocol on the Michigan Regional Comprehensive Metabolomics Resource Core (MRC<sup>2</sup>) website before preparing samples for analysis or contact the core director at the number below for details.

Analyte	KEGG /CAS number	Molecular Formula	LOD (uM)
CA (Cholate)	C00695	C <sub>24</sub> H <sub>40</sub> O <sub>5</sub>	0.2
GCA (Glycocholate)	C01921	C <sub>26</sub> H <sub>43</sub> NO <sub>6</sub>	0.2
DCA (Deoxycholate)	C04483	C <sub>24</sub> H <sub>40</sub> O <sub>4</sub>	0.2
TLCA (Tauroolithocholate)	C02592	C <sub>26</sub> H <sub>45</sub> NO <sub>5</sub> S	0.2
TCA (Taurocholate)	C05122	C <sub>26</sub> H <sub>45</sub> NO <sub>7</sub> S	0.2
CDCA (chenodeoxycholate)	C02528	C <sub>24</sub> H <sub>40</sub> O <sub>4</sub>	0.2
<i>α</i> -MCA ( <i>alpha</i> -Murocholate)	C17647	C <sub>24</sub> H <sub>40</sub> O <sub>5</sub>	0.2
<i>β</i> -MCA ( <i>beta</i> -Muricholate)	C17726	C <sub>24</sub> H <sub>40</sub> O <sub>5</sub>	0.2
<i>ω</i> -MCA ( <i>omega</i> -Muricholate)	C17727	C <sub>24</sub> H <sub>40</sub> O <sub>5</sub>	0.2
GLCA (glycolithocholate)	15324-64-8	C <sub>26</sub> H <sub>43</sub> NO <sub>4</sub>	0.2
TCDCA (taurochenodeoxycholate)	6009-98-9	C <sub>26</sub> H <sub>45</sub> NO <sub>6</sub> S	0.2
TDCA (taurodeoxycholate)	C05463	C <sub>26</sub> H <sub>45</sub> NO <sub>6</sub> S	0.2
GHDCa (glycohyodeoxycholate)	CID114611[13042-33-6]	C <sub>26</sub> H <sub>43</sub> NO <sub>5</sub>	0.2



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GUDCA (glycoursodeoxycholate)	CID12310288 [64480-66-6]	C <sub>26</sub> H <sub>43</sub> NO <sub>5</sub>	0.2
GCDCA (glycodeoxycholate)	640-79-9	C <sub>26</sub> H <sub>43</sub> NO <sub>5</sub>	0.2
GHCA (glychoyocholate)	32747-08-3	C <sub>26</sub> H <sub>43</sub> NO <sub>6</sub>	0.2
HCA (hyocholic acid)	C17649	C <sub>24</sub> H <sub>40</sub> O <sub>5</sub>	0.2
UDCA/HDCA (hyodeoxycholate)	C07880/C155 17	C <sub>24</sub> H <sub>40</sub> O <sub>4</sub>	0.2
THDCA (taurohyodeoxycholate)/ TUDCA (tauroursodeoxycholate)	14605-22-2	C <sub>26</sub> H <sub>45</sub> NO <sub>6</sub> S	0.2
GDCA (glycodeoxycholate)	16409-34-0	C <sub>26</sub> H <sub>43</sub> NO <sub>5</sub>	0.2
TaMCA(tauro-alpha-muricholate)/ TbMCA (tauro-beta-muricholate)	25696-60-0	C <sub>26</sub> H <sub>45</sub> NO <sub>7</sub> S	0.2
THCA Tauro-gamma-muricholate aka taurohyocholate	117997-17-8	C <sub>26</sub> H <sub>45</sub> NO <sub>7</sub> S	0.2
<b>Rodent species in blue font</b>			
<b>Analytes reported are matrix/species dependent</b>			