

StoolOMX ~

BILE ACIDS - SUMMARY

The Bile Acids Panel assesses fecal concentrations of primary and secondary bile acids and provides insights into microbiome diversity, digestive function, motility, and various gut-related conditions.



SHORT CHAIN FATTY ACIDS - SUMMARY

The Postbiotic Fatty Acid Metabolite Panel assesses fecal concentrations of straight chain and branched chain fatty acids. These metabolites provide a variety of beneficial effects for intestinal health, anti-inflammation, metabolism and immunity, and give dietary insight.



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BILE ACIDS - RESULTS									
PRIMARY BILE ACIDS	Abbreviation	Conjugation**	Result ng/g	Reference ng/g					
Total Primary Bile Acids			4.87e4 L	2.37e5 - 4.85e6					
Cholic Acid	CA	U	4.04e3	< 5.92e4					
Chenodeoxycholic Acid	CDCA	U	3.08e4	2.16e3 - 6.87e4					
Taurochenodeoxycholic Acid	TCDCA	С	7.39e2 H	< 4.14e2					
Taurocholic Acid	TCA	С	1.51e3 H	< 5.19e2					
Glycochenodeoxycholic Acid	GCDCA	С	3.59e2	1.18e1 - 8.11e2					
Glycocholic Acid	GCA	С	3.04e2	< 7.55e2					
Hyocholic Acid	HCA	U	1.10e4 H	< 5.50e3					
SECONDARY BILE ACIDS	Abbreviation	Conjugation**	Result ng/g	Reference ng/g					
Total Secondary Bile Acids			2.56e6	1.97e5 - 6.23e6					
Deoxycholic Acid	DCA	U	1.73e6	2.24e3 - 2.33e6					
Lithocholic Acid*	LCA	U	5.71e5	6.12e3 - 1.37e6					
Isolithocholic Acid	ISO-LCA	U	9.78e4	2.21e3 - 5.36e5					
12-Ketolithocholic Acid	12-KLCA	U	9.46e4	1.87e3 - 5.30e5					
3-oxoDeoxycholic Acid	3-oxoDCA	U	4.74e3	3.53e2 - 1.12e5					
Ursodeoxycholic Acid	UDCA	U	<dl< td=""><td>< 5.77e4</td></dl<>	< 5.77e4					
7-Ketolithocholic Acid	7-KLCA	U	2.10e3	< 8.94e3					
7-Ketodeoxycholic Acid	7-KDCA	U	1.10e3	< 1.01e4					
Dehydrolithocholic Acid	DHLCA	U	1.33e3	< 4.52e4					
Hyodeoxycholic Acid	HDCA	U	6.28e4 H	< 5.27e4					
Alloisolithocholic Acid	Allolso-LCA	U	8.44e2	< 7.53e4					
3-Dehydrocholic Acid	3-DHCA	U	1.12e2	< 5.85e2					
Glycolithocholic Acid	GLCA	С	<dl< td=""><td>< 2.20e2</td></dl<>	< 2.20e2					
Glycoursodeoxycholic Acid	GUDCA	С	3.81e1	< 3.08e2					
Glycodeoxycholic Acid	GDCA	С	<dl< td=""><td>< 5.40e2</td></dl<>	< 5.40e2					
Taurolithocholic Acid	TLCA	С	<dl< td=""><td>< 2.68e2</td></dl<>	< 2.68e2					
Tauroursodeoxycholic Acid	TUDCA	С	<dl< td=""><td>< 1.28e2</td></dl<>	< 1.28e2					
Taurodeoxycholic Acid	TDCA	С	6.36e1	< 8.56e2					

*LCA value is the summation of LCA + Allo-LCA | ** C = Conjugated | U = Unconjugated







SHORT CHAIN FATTY ACIDS - RESULTS

Total Short Chain Fatty Acids - µg/g

/g 2.30e4 H

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4.23e3 - 2.10e4

SACCHAROLYTIC STRAIGHT CHAIN FATTY ACIDS (SCFA)		PROTEOLYTIC BRANCHED CHAIN FATTY ACIDS (BCFA)			
	Result µg/g	Reference µg/g		Result µg/g	Reference µg/g
Total SCFA	2.17e4 H	3.65e3 - 1.95e4	Total BCFA	1.33e3	1.65e2 - 1.67e3
Acetate	1.20e4 H	2.09e3 - 9.72e3	Iso-butyrate	4.60e2	5.65e1 - 5.64e2
Butyrate	4.76e3	3.94e2 - 5.79e3	Iso-valerate	4.93e2	4.45e1 - 6.58e2
Propionate	4.75e3	5.91e2 - 5.45e3	2-Methylbutyrate	3.73e2	3.82e1 - 4.61e2
Valerate	1.59e2	4.33e1 - 7.73e2	Iso-caproate	<dl< td=""><td>< 9.93e0</td></dl<>	< 9.93e0
Caproate	4.62e0	7.15e-1 - 1.44e2			



BILE ACIDS AND FATTY ACIDS OVERVIEW



Primary bile acids are synthesized from cholesterol in the liver and conjugated with either taurine or glycerin. They are stored in the gallbladder and released during digestion to assist with the absorption of fat and fatsoluble vitamins.

95% of primary bile acids are reabsorbed via the portal vein, while 5% are metabolized by gut bacteria to produce secondary bile acids.

Saccharolytic short chain fatty acids (SCFAs) are primarily metabolites of dietary fiber fermentation in the gut while proteolytic branched chain fatty acids (BCFAs) are metabolites of protein fermentation.

Acetate, propionate, and butyrate are three major SCFAs, which account for 90% of the SCFAs produced by gut microbiota. SCFAs are known to have numerous health effects and can enhance fecal excretion of bile acids.