

Test Description

Bile Acid Malabsorption (BAM) or failure of absorption of bile acids by the distal ileum results in spillover of bile acids into the colon causing diarrhea. The PROMETHEUS 7C4 Diagnostic Test measures 7 α -hydroxy-4-cholesten-3-one (7C4) levels in patients to determine if BAM is the cause for persistent diarrhea or irritable bowel syndrome-diarrhea (IBS-D). 7C4 is a marker for measuring the activity of the major rate limiting enzyme in the hepatic bile acid biosynthesis pathway, which is regulated by the CYP7A1 gene (Russell, 2003). Correlation of 7C4 with BA synthesis has been validated in multiple studies (Hoffman et. al.,2009, Axelson et al.,1991)

- Performed using liquid chromatography and tandem mass spectrometry (LC-MS/MS)
- **Specimen Requirements** - 1.0 mL Serum, SST or Red Top Tube
- **Shipping Requirements** - Sample must be shipped refrigerated
- **Storage / Stability** – 3 days ambient, 7 days refrigerated
- **Turn Around Time** - 3-4 business days from date of receipt
- This test does not require fasting

Test Information

Catalog Number	Test Name	Assay	Reference Value	Result Identifier*
8205	7C4	7 α -hydroxy-4-cholesten-3-one (7C4)	≤ 55 ng/mL	A00113

*Result identifier provided for use in HL7 applications

Laboratory Description

- Prometheus is located in San Diego, CA. Tax ID# 33-0685754 NPI# 1073642641.
- Licensed in all states including New York and California.
- This test was developed and its performance characteristics determined by Prometheus Laboratories Inc. It has not been cleared or approved by the U.S. Food and Drug Administration. Prometheus Laboratories Inc. is a CAP accredited CLIA laboratory.

CPT[®] Codes (as applied by Prometheus)

- 82542 (x1) 7C4

Literature References

- Barkun AN, Love J, Gould M, Pluta H, Steinhart H. Bile acid malabsorption in chronic diarrhea: pathophysiology and treatment. *Can J Gastroenterol.* 2013;27(11):653-659.
- Data on File. Prometheus Laboratories Inc. DOF16-005, 04/2018.

This test may be covered by one or more US pending or issued patents – see prometheuslabs.com for details

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