

Ethylglucuronide

General:

Ethylglucuronide (ETG) is a marker for testing regular consumption of alcohol. Alcoholism is a social problem and has a substantial medical impact because of toxic side effects on many organs. Definite markers for alcohol consumption/abuse have to be critically evaluated. Ethylalcohol is catabolized to the largest extent by the liver and the direct detection of ethanol (blood alcohol level) in blood is limited after consumption to a few hours (biotransformation approx. 0.1-0.3 per mill per hour). Other markers are detectable in weeks or months. This diagnostic gap is partially covered by ethylglucuronide. It appears exclusively after consumption of alcohol. De-pending on the quantity of consumed alcohol the ETG in serum is traceable up to 36 hours. The extent of the ETG level permits to predict the maximum blood alcohol level. More than 5 mg/l ETG points to blood alcohol level to at least 1.6 per mill. Ethylglucuronide is detectable in urine up to 4 days after consumption of alcohol.

The following alcohol markers are available:

Marker	Material	Normal range	Time span of detection
alcohol level in blood	serum	<0.1 per mill	up to approx. 15h after consumption
ethylglucuronide	serum	<0.1 mg/l	up to approx. 36h after consumption
ethylglucuronide	spont. urine	<0.1 mg/l	up to approx. 4 days
CDT	serum	<1,2 %	up to approx. 2 weeks

The following tests are available:

- **Ethylglucuronide in serum**

Material: 1 ml serum

TAT: 7-10 days*

Method: LCMS

Units: mg/l

Ref.- range: <0.1

Note: Assessment: The determination of blood alcohol level and ethylglucuronide confirm the consumption of alcohol. GGT and MCV are long-term markers, which can reach pathological values but also without consuming alcohol. The specificity of CDT is controversially discussed. An increased CDT does not confirm the abuse of alcohol.

- **Ethylglucuronide in urine**

Material: 10 ml urine

TAT: 7-10 days*

Method: LCMS

Units: mg/l

Ref.- range: <0.1

For complete list of laboratory test offered at Freiburg Medical Laboratory, please visit
<http://www.fml-dubai.com/parameter-listings/>