

Chronic Alcohol Abuse

Your choice in HPLC and LC-MS/MS diagnostics

- + Certified and quality approved CE-IVD solutions
- + Complete kits and reference materials for reliable analysis
- + Personal support for all topics related to modern laboratory analytics



+RECIPE

RECIPE Chemicals +
Instruments GmbH
Dessauerstraße 3
80992 München
Tel. +49 89 54 70 81 - 0
Fax. +49 89 54 70 81 - 11
info@recipe.de
www.recipe.de

ALC_b_eV1

Biomarkers in clinical diagnostics
EtG/EtS and CDT

Alcohol Consumption

- Lifestyle or Threat -

Facts

- + per capita consumption of pure alcohol amounts to 11 liters per year
- + 1.7 million men and women in Germany are addicted to alcohol
- + more than 2 % of all fatalities are connected to alcohol
- + 13.000 new cases of cancer are directly related to excessive alcohol consumption
- + 256 persons die each year due to alcohol-related accidents
- + 27,9 % of suspects of selected criminal offences were under the influence of alcohol



Source of data:

*Alkoholatlas Deutschland 2017,
published by the DKFZ
(German Cancer Research Centre, Heidelberg)*

Some diseases are directly caused by alcohol consumption. By far more than 200 diseases are related to excessive alcohol consumption.

Prevention, early diagnosis and therapy therefore play an important role.

Clinical diagnostics provide a substantial contribution in the detection and monitoring of alcohol abuse with different specific and sensitive biomarkers.



Relevant areas are

- + **Forensics**
- + **Occupational medicine**
- + **Alcohol withdrawal**

Biomarkers

in clinical diagnostics

MS8000 – MS8100 ClinMass® Complete Kits for Ethylglucuronide and Ethylsulfate in Urine, Plasma and Serum

Ethylglucuronide in Urine, Plasma and Serum in the „acute abstinence monitoring“

Half-life:	3-5 days
in Urine:	measurable for 4-72 hrs
Plasma and Serum:	detectable for 8 hrs
Specificity:	98.9 %
Sensitivity:	89.3 %
Method:	LC-MS/MS

The determination of EtS can play an important role regarding the plausibility check in the „acute abstinence monitoring“ considering the EtG/EtS ratio (see Toxichem Krimtech 2016;83(3):156).

21000 – 21200 ClinRep® Complete Kits for CDT in Serum

CDT Carbohydrate Deficient Transferrin in Serum in case of chronic alcohol abuse

Half-life:	2-3 weeks
Specificity:	97 %
Sensitivity:	40-60 %
Method:	HPLC

IFCC* recommendation regarding the determination of CDT

Validated reference range since 07/2018:

Normal range:	< 1.7 % CDT _{IFCC}
Forensic cut-off value:	2.0 % CDT _{IFCC}

The RECIPE ClinRep® Complete Kit was calibrated on the IFCC RMP** with the secondary calibrator CDT-IFCC-cal, lot 2013.316. The values established with this kit can therefore be indicated as % CDT_{IFCC}.

* International Federation of Clinical Chemistry and Laboratory Medicine

** Reference Measurement Procedure