



QuantiChrom™ Ethanol Assay Kit

Alcoholic drinks are among the daily consumed beverages. Studies have shown heavy alcohol consumption may lead to various forms of liver diseases and to increased mortality rates. Quantitative determination of alcohol or ethanol (C₂H₅OH) finds applications in basic research, clinic studies and winery.

Simple, direct and automation-ready procedures for measuring alcohol concentration are very desirable. BioAssay Systems' QuantiChrom™ alcohol assay kit is based on an improved dichromate method, in which ethanol reduces dichromate to a bluish chromic product. The intensity of color, measured at 580 nm, is directly proportional to the alcohol concentration in the sample. The optimized formulation substantially reduces interference by substances in the raw samples and exhibits high sensitivity.

APPLICATIONS

Direct Assays: ethanol in saliva, urine, alcoholic beverages, deproteinated culture media, plasma and serum samples.

Pharmacology: effects of drugs on alcohol metabolism.

Fermentation: monitoring alcohol production and process development.

KEY FEATURES

Sensitive and accurate. Use 100 µL samples. Detection range 0.04 – 4% alcohol in 96-well plate assay.

Convenient and high-throughput. The procedure involves addition of a single working reagent, incubation for 8 to 30 min, adding a termination buffer, and reading the optical density. Can be readily automated as a high-throughput 96-well plate assay for thousands of samples per day.

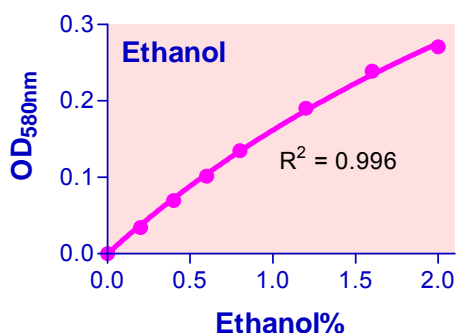
Versatility. Assays can be executed in 96-well plate or cuvet.

PRODUCT INFORMATION:

QuantiChrom™ Ethanol Assay Kit DIET-500

Each kit is sufficient for 500 assays in 96-well plate. Kit includes:

- 1 x 50 mL Reagent A
- 1 x 50 mL Reagent B
- 1 x 50 mL TCA (10%)
- 1 x 1.5 mL 10% Ethanol standard



Standard Curve in 96-well plate assay

REFERENCES:

- [1]. Jetter WW (1950). Modified dichromate method for determination of ethyl alcohol in biologic tissue. *Am J Clin Pathol.* 20:473-475.
- [2]. Pilone GJ (1985). Determination of ethanol in wine by titrimetric and spectrophotometric dichromate methods: collaborative study. *J Assoc Off Anal Chem.* 68:188-190.
- [3]. Dubowski KM (1980). Alcohol determination in the clinical laboratory. *Am J Clin Pathol.* 74:747-750.