new_diagnostics

A-YMS

The yeast assay for the effect-based detection of mineralcorticoid activity

BRIEF DESCRIPTION

The **A-YMS** utilizes the non-conventional yeast biosensor *Arxula adeninivorans*, which carries the gene for the human mineralcorticoid receptor (NR3C2) and the gene for the *Klebsiella sp.* phytase. Binding of ligands to the receptor will subsequently activate the production of the reporter enzyme phytase. The measured OD_{405} correlate with the total concentration of mineralcorticoid activity in the sample. The determination of Cortisol Equivalents (CLEQ) is achieved by using sigmoidal dose-response relationship.

KEY SPECIFICATIONS

Calibration standard:	cortisol (CL)
LOD*:	92.0 µg/L CL
LOQ*:	129.8 µg/L CL
Calibration Range:	0 – 5000 µg/L CL
Total assay time:	26 h

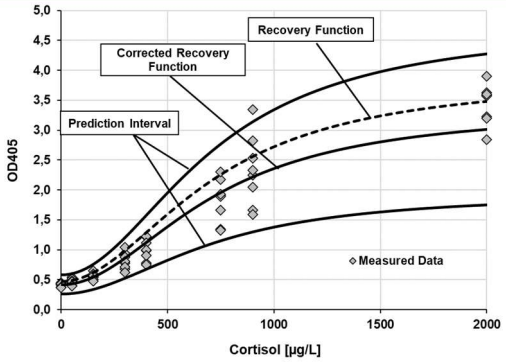
*refers to the results of the in-house validation study

BENEFITS AT A GLANCE

- Quality approved ready-to-use test kit
- No sterile workplace required
- Biosensor contains no antibiotic resistance markers
- Less required sample volume
- Automated data evaluation with BioVAL

VALIDATION

The validation of the **A-YMS** was performed according to a factorial in-house validation study with eight different water samples including drinking and environmental water. The samples were spiked with different concentrations of CL. In this study, relevant parameters affecting test performance were systematically varied. The validation was planned and accomplished by QuoData GmbH.



BIOVAL

- Web-based software with individual user account
- Application of up-to-date statistical approaches
- Comprehensive editable report

SPECIAL LABORATORY REQUIREMENTS

- BSL1 laboratory
- Incubator + Shaker for microplates (shaker orbit 3 mm – 25 mm)
- Centrifuge for microplates
- Microplate reader for absorbance

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