

# A-YES<sup>lumi</sup>

The innovative yeast assay for the effect-based detection of estrogenic activity



## BRIEF DESCRIPTION

The **A-YES<sup>lumi</sup>** utilizes the non-conventional yeast biosensor *Arxula adenivorans*, which carries the gene for the human estrogen receptor  $\alpha$  (hER $\alpha$ ) and the gene for the firefly luciferase. Binding of ligands to the receptor will subsequently activate the production of the reporter enzyme luciferase. The measured relative light units (RLU) correlate with the total concentration of estrogenic activity in the sample. The determination of 17 $\beta$ -Estradiol Equivalents (EEQ) is achieved by using sigmoidal dose-response relationship.

## KEY SPECIFICATIONS

- Calibration standard: 17 $\beta$ -estradiol (E2)
- LOD\*: 0.75 ng/L E2
- LOQ\*: 1.23 ng/L E2
- Calibration Range: 0 – 50 ng/L E2
- Total assay time: 4.5 h

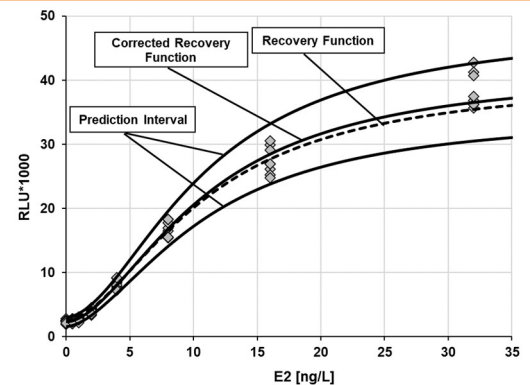
\*refers to the results of the in-house validation study

## 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-YES<sup>lumi</sup>** 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 E2. In this study, relevant parameters affecting the 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 1.5 – 4.5 mm)
- Microplate reader for luminescence

