

Yeast Estrogen Screen (YES) with *Saccharomyces cerevisiae*

Bioassay with genetically modified yeast cells to detect estrogenic effects of natural and synthetic substances.

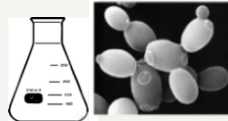
Storage of 10 x conc. glycerol stocks of yeast cells

Max. 4 months at -20°C, long-term at -80°C



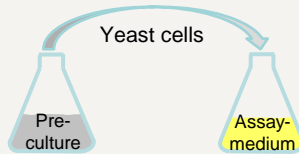
Pre-culture

Growth medium + glycerol stock



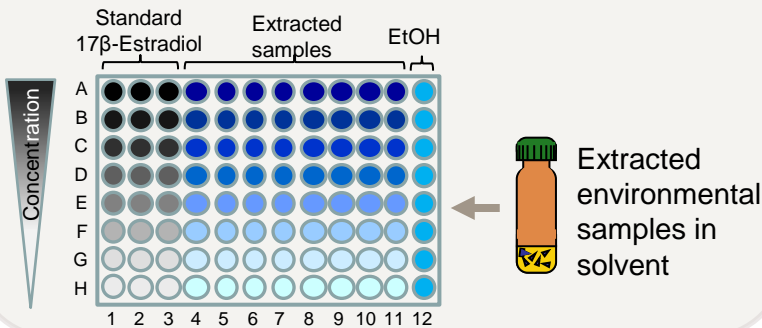
Test culture

Assay-Medium: Growth medium + yeast cells + CPRG



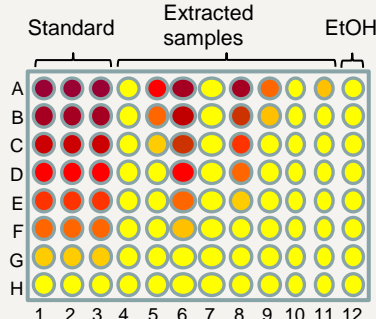
Pipetting of the test plate

Evaporate solvent, then add 200 µl assay medium per well



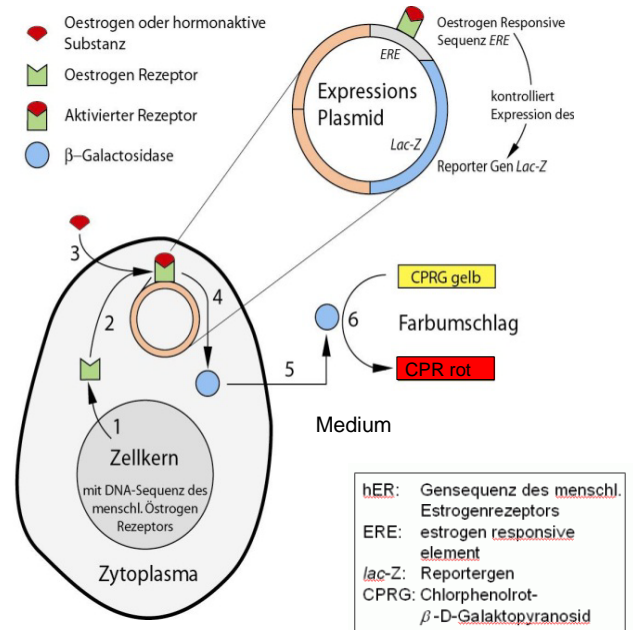
Absorbance measurement after 72h

Cell density (OD_{620nm}) and colour change (OD_{540nm})



Detection of estrogenically active substances

- Test principles**
- Expression of the human estrogen receptor
 - Activation of the reporter gene
 - Induction of the enzyme β-galactosidase
 - Colour change of the medium



Data evaluation

Calculation of the Estradiol Equivalent Concentration (EEQ) of the environmental samples, derived from the standard curve.

