



Biosensor for Specific Endocrine Disruptors

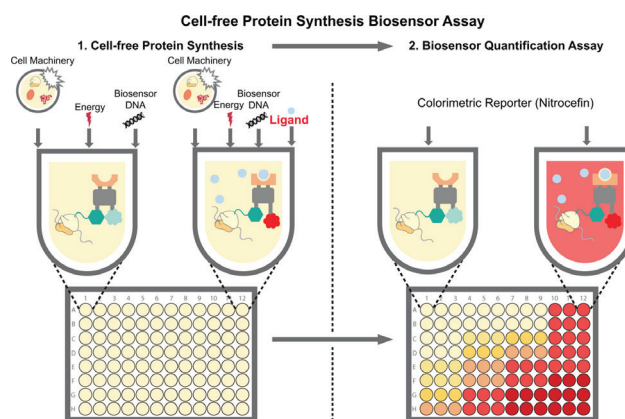
BYU #2016-053

DESCRIPTION

Researchers at BYU developed an assay for endocrine disruptors (ED) that is used for rapid and inexpensive evaluation of endocrine disrupting activity in environmental and industrial samples. It can also be used as a high-throughput screen to identify ED and potential pharmaceuticals that target hormone receptors. In this assay, a chemical reaction creates special detector proteins that change activity when endocrine disrupting chemicals (EDCs) are present. This change produces a color modification for the operator to measure, thus identifying endocrine disrupting activity.

PROBLEM SOLVED

EDCs have been found in common dietary, environmental, and household chemicals (e.g. product coatings, manufacturing residues, drinking water, etc) and have been linked to diverse diseases and disorders, including multiple cancers, developmental disorders, and other epigenetic dysfunction. Conventional ED tests require days to complete and extensive specialized training. This biosensor is significantly faster, 20 to 90 minutes, and less labor intensive than commonly available technologies, making it a promising tool for detecting environmental EDC contamination and screening potential NHR-targeted pharmaceuticals.



KEY ADVANTAGES

- » *Near real-time readout*
- » *Reduced labor and cost requirements*
- » *Potential for portability and in-field use*

APPLICATIONS

This technology is ideal for high-throughput screening of potential ED, or for high-throughput screening of potential pharmaceuticals that target hormone receptors. It has the potential to be made portable for in-field, on-site detection of ED in environmental and industrial samples.

Offer:
License
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IP Status:
Patent Pending



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