Cell Lines for High Throughput Screening of Estrogenic Compounds

WARF: P150257US01

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The Wisconsin Alumni Research Foundation (WARF) is seeking commercial partners interested in developing cell lines for screening and characterization of the estrogen receptor specificity of compounds.

Overview

Two estrogen receptor isoforms regulate normal mammary cells in response to estrogen: ERα and ERβ. ERα is currently a therapeutic target in breast cancer, and breast cancers expressing ERα are commonly treated with ERα antagonists including tamoxifen and raloxifene. It is estimated that 50 to 60 percent of triple negative breast cancers express ERβ and it may also prove to be an effective therapeutic target.

The Invention

A UW–Madison researcher has developed cells lines, Hs578T-ERαLuc and Hs578T-ERβLuc, with stable estrogen receptor elements fused to luciferase genes as well as separate inducible estrogen receptor (ER) constructs. Inducible ER expression will allow the use of high throughput screening for identifying ER-selective ligands inside cells.

Applications

- These cell lines provide a high throughput format to screen for compounds that selectively activate either ERα or ERβ.

Key Benefits

- Biomaterial readily available for licensing
- Valuable tools for identifying compounds that show selectivity for ERα and ERβ given their sensitivity, selectivity and stability

Stage of Development

The cell lines have been used by the researcher for screening and characterization of the ER-specificity of compounds for several years.

Additional Information

For More Information About the Inventors

- Wei Xu

Tech Fields

- Research Tools : Cell lines

For current licensing status, please contact Jennifer Gottwald at Jennifer@warf.org or 608-960-9854