Breast Cancer Model for endogenous tamoxifen resistance

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Technology description

Clinically relevant breast cancer cell line that can be used to test and validate novel therapeutics for tamoxifen resistant breast cancer.
UIC researchers have developed several clinically relevant breast cancer cell lines in order to investigate the antitumor effects of novel benzothiophene selective estrogen mimics (SEM).
Among these, the T47D:A18-TAM1 cell line shows an endogenous resistance to tamoxifen. The cells also exhibit an increased expression of Protein Kinase C alpha (PKCα) which is an important player in tamoxifen resistant breast cancer.
The cell line has been used in in-vitro studies as well as to generate in-vivo mouse xenograft tumor models.
The culture conditions, morphology and growth behavior of the cell line is well characterized and they have been authenticated using short tandem repeat (STR) and ATCC analysis.
These cells have been designed to test and validate novel therapeutics for tamoxifen resistant breast cancer.

Application area

The tamoxifen resistant T47D:A18-TAM1 tumor model has been designed:
To study the biology of clinically relevant breast cancer.
To examine effects of novel drugs to treat tamoxifen resistant breast cancer

Advantages

These cells exhibit endogenous resistance to tamoxifen
They exhibit a stable and robust expression of PKCα.
They are ready to use for drug discovery and validation studies

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