

Coming soon HCI-013 PDX

Catalogue number: 162081

Tool type:

Contributor

Inventor: Alana L Welm, Yi-Chun Lin, Yoko Sakata DeRose

Institute: The University of Utah Research Foundation

Images:

Tool details

***FOR RESEARCH USE ONLY**

Name: Coming soon HCI-013 PDX

Alternate name:

Class:

Conjugate:

Description: Please register your interest through the enquiry button (quote not currently available)

Human breast cancer-derived xenograft that retains high fidelity to original tumour and provides valuable resources for drug discovery and precision oncology. This panel of Patient Derived Xenografts provide models for some of the deadliest forms of breast cancer including drug-resistant, metastatic tumours, and endocrine-resistant estrogen receptor-positive (ER+) and HER2+ tumours.

Sample collected in 2010 from pleural effusion of Caucasian female, age 53 at time of collection with a primary diagnosis of ILC; 2003. Patient had no prior history of smoking, and experienced clinical metastasis to the lung, liver and pericardium. Patient had undergone radiation therapy to bone other than spine (2007) and spine (2010) and had systemic treatment of leuprolide 2003-2008; letrozole 2003- 2007; zoledronic acid 2003-2010; tamoxifen 2007-2008; exemestane 2008; cyclophosphamide, 2008; 5-fluorouracil, methotrexate 2008; capecitabine 2008-2009; paclitaxel 2009; nab-paclitaxel 2009; doxorubicin 2009-2010; carboplatin, gemcitabine 2010 prior to sample collection. Patient and PDX characteristics were as follows - ER status: positive, PR status: positive, HER2 status: negative. PDX information: PAM50 subtype is luminal B, Partially estrogen dependent, PTEN positive by IHC, and shows metastasis to lung.

Purpose:

Parental cell:

Organism:

Tissue:

Model:

Gender:

Female

Isotype:

Reactivity:

Selectivity:

Host:

Immunogen:

Immunogen UNIPROT ID:

Sequence:

Growth properties:

Production details: Fresh or thawed human breast tumour fragments were implanted into the cleared inguinal mammary fat pad of female Immune-compromised mice. For bone metastasis samples, bone fragments were coimplanted. For liquid specimens, pleural effusion, or ascites fluid, 1-2 million cells were injected into cleared mammary fat pads in Matrigel. For ER+ tumours, mice were dosed with E2 beeswax pellets and given supplemental E2 via drinking water. When tumours reached 1-2 cm in diameter, tumours were aseptically collected and reimplanted into new mice or banked. Estrogen-independent ER+ breast PDX models were generated when ER+ PDX tumours were transplanted into ovariectomized mice without E2 supplementation.

Formulation: Frozen explant from the xenografted tumour

Recommended controls:

Bacterial resistance:

Selectable markers:

Additional notes: Additional Information on PDX establishment:

<https://www.nature.com/articles/s43018-022-00337-6/figures/9>

Patient details

Cancer subtype: Infiltrating Lobular Carcinoma

Cancer stage/grade: Stage IV

Biopsy site: Pleural Effusion Fluid

Patient ethnicity: Caucasian

Treatment history: Pretreated: Patient had undergone radiation therapy to bone other than spine (2007) and spine (2010) and had systemic treatment of leuprolide 2003-2008; letrozole 2003-2007; zoledronic acid 2003-2010; tamoxifen 2007-2008; exemestane 2008; cyclophosphamide, 2008; 5-fluorouracil, methotrexate 2008; capecitabine 2008-2009; paclitaxel 2009; nab-paclitaxel 2009; doxorubicin 2009-2010; carboplatin, gemcitabine 2010 prior to sample collection

Engraftment details

Mice passaged?: Yes

Engraftment site: Cleared mammary fat pad

Sample type: Suspension in Matrigel

Host strain: Immunocompromised mice NOD scid gamma (NSG) Jackson Laboratory 5557; NOD/scid, Jackson Laboratory 1303 or NOD rag gamma (NRG), Jackson Laboratory 7799

Histology: PAM50 subtype Luminal B

Genetic data: Whole exome sequencing, SNP array, CNV data and RNA sequence from Guillen et al.

2022 Nature Cancer, is available in NIH database dbGaP under accession number phs002479.v1.p1

Target details

Target:

Target alternate names:

Target background:

Molecular weight:

Ic50:

Applications

Application:

Application notes:

Handling

Format: Frozen explant from the xenografted tumour

Concentration:

Passage number:

Growth medium:

Temperature:

Atmosphere:

Volume:

Storage medium:

Storage buffer:

Storage conditions:

Shipping conditions:

CancerTools.org

Related tools

Related tools:

References

References: