

# Coming soon HCI-031 PDX

**Catalogue number:** 162096

**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-031 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 2016 from pleural effusion of Caucasian female, age 55 at time of collection with a primary diagnosis of invasive lobular carcinoma with LCIS 2009. Patient had no former history of smoking and had clinical metastasis in bones, liver, ovary, fallopian tubes, pleural effusion, and brain detected. Patient had not undergone radiation therapy prior but had received systemic treatment of doxorubicin, cyclophosphamide 2009; bisphosphonate adjuvant trial 2009; tamoxifen, zoledronic acid 2009-2011; anastrozole 2011-2013; exemestane, denosumab 2013; PALOMA-3 trial 2014; capecitabine, denosumab 2015 prior to sample collection. Patient and PDX characteristics were as follows - ER status: negative, PR status: negative, HER2 status: negative. PDX information: PAM50 subtype not done and metastasis in ovary, brain and lung detected.

**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:**

**Biopsy site:** Pleural Effusion Fluid

**Patient ethnicity:** Caucasian

**Treatment history:** Pretreated: Patient had not undergone radiation therapy prior but had received systemic treatment of doxorubicin, cyclophosphamide 2009; bisphosphonate adjuvant trial 2009; tamoxifen, zoledronic acid 2009-2011; anastrozole 2011-2013; exemestane, denosumab 2013; PALOMA-3 trial 2014; capecitabine, denosumab 2015 prior to sample collection.

## Engraftment details

**Mice passaged?:** Yes

**Engraftment site:** Cleared mammary fat pad

**Sample type:**

**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:**

**Genetic data:**

## 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:**