

Coming soon HCI-028 PDX

Catalogue number: 162094

Tool type:

Contributor

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Images:

Tool details

***FOR RESEARCH USE ONLY**

Name: Coming soon HCI-028 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 31 at time of collection with a primary diagnosis of IDC; 2010. Patient was a former smoker for 10 years, and had clinical metastasis detected in bone, lung, ovary, liver, and brain. Patient had undergone radiation therapy of breast in 2011 and had received systemic treatment of doxorubicin, cyclophosphamide, paclitaxel 2011; tamoxifen 2011; metformin trial 2014-2015; letrozole 2015; zoledronic acid 2015 (1 dose); pertuzumab, trastuzumab, taxotere 2015; everolimus and exemestane 2015; capecitabine, lapatinib 2015; docetaxel 2016; pertuzumab, trastuzumab 2016; ado-trastuzumab emtansine 2016; methotrexate 2016; topotecan 2016 prior to sample collection. Patient and PDX characteristics were as follows - ER status: negative, PR status: negative, HER2 status: negative. PDX information: PAM50 subtype is HER2-enriched and metastasis in lymph node, lung, and liver 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 Ductal Carcinoma

Cancer stage/grade:

Biopsy site: Pleural Effusion Fluid

Patient ethnicity: Caucasian

Treatment history: Pretreated: Patient had undergone radiation therapy of breast in 2011 and had received systemic treatment of doxorubicin, cyclophosphamide, paclitaxel 2011; tamoxifen 2011; metformin trial 2014-2015; letrozole 2015; zoledronic acid 2015 (1 dose); pertuzumab, trastuzumab, taxotere 2015; everolimus and exemestane 2015; capecitabine, lapatinib 2015; docetaxel 2016; pertuzumab, trastuzumab 2016; ado-trastuzumab emtansine 2016; methotrexate 2016; topotecan 2016 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:

PAM50 subtype Her2 enriched

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:

Related tools

Related tools:

References

References:

CancerTools.org