

ZH3D7 somatic hybrid cell line panel

Catalogue number: 154647

Sub-type: Continuous

Images:

Contributor

Inventor:

Institute: Erasmus University Medical Center (Erasmus MC)

Images:

Tool details

***FOR RESEARCH USE ONLY**

Name: ZH3D7 somatic hybrid cell line panel

Alternate name:

Class:

Conjugate:

Description: Endocrine therapy of breast cancer has been applied widely and proven to be effective. However, in many instances endocrine treatments ultimately fail due to the development of an estrogen-independent therapy resistant phenotype. To elucidate the molecular mechanism underlying this endocrine therapy failure, the laboratory of Lambert Dorssers applied random insertional mutagenesis using defective retroviruses to identify the main genes conferring estrogen independence. Out of 15 candidate BCAR genes, several including BCAR1 and BCAR2 were shown to directly underlie estrogen independence. Somatic cell fusions were generated for these two genes in the hygromycin-B-resistant variant of ZR-75-1 breast cancer cells (ZH3D7) resulting in a panel of 3 cell lines (Cat No 154639-154641). These cell lines are a powerful tool for studying the molecular and cellular mechanisms of breast tumour progression and therapy resistance.

Purpose:

Parental cell: ZH3D7

Organism: Human

Tissue: Breast

Model: Cancer Model

Gender:

Isotype:

Reactivity:

Selectivity:

Host:

Immunogen:

Immunogen UNIPROT ID:

Sequence:

Growth properties:

Production details: Hygromycin-B-resistant variants of ZR-75-1 cells, ZH3D7, were used as recipients in the somatic-cell-fusion experiments. Donor cells were two different anti-estrogen-resistant cell lines. Approximately 6 million donor cells, which were gamma-irradiated with approx 40 Gy and 3 million recipient cells were plated in 25cm flasks in RBCS medium with estradiol. After strong adherence to the flasks in 36 to 48 hr, cells were washed 3 times in RPMI-1640 without serum and incubated with 1 ml polyethy...

Formulation:

Recommended controls:

Bacterial resistance:

Selectable markers:

Additional notes:

Target details

Target: BCAR1, BCAR2

Target alternate names:

Target background:

Molecular weight:

Ic50:

Applications

Application:

Application notes: These cell lines are resistant to hygromycin and Geneticin and are maintained in RBCS medium with estradiol and Geneticin. Since they carry a BCAR gene, that can also proliferate slowly in medium without estradiol and supplemented with anti-estrogen.

Handling

Format: Frozen

Concentration:

Passage number:

Growth medium: RBCS medium containing estradiol and Geneticin (G418)

Temperature:

Atmosphere:

Volume:

Storage medium:

Storage buffer:

Storage conditions:

Shipping conditions: Dry ice

Related tools

Related tools:

References

References: Godinho et al. 2011. J Cell Physiol. 226(7):1741-9. PMID: 21506106. ; van Agthoven et al. 2010. Endocr Relat Cancer. 17(1):215-30. PMID: 19966015. ; van Agthoven et al. 1998. EMBO J. 17(10):2799-808. PMID: 9582273.

CancerTools.org