ZR-75-1 [VIII-18] cell line

Catalogue number: 154556
Sub-type: Continuous
Images:

Contributor

Inventor: Lambert Dorssers
Institute: Erasmus University Medical Center (Erasmus MC)
Images:

Tool details

***FOR RESEARCH USE ONLY**

Name: ZR-75-1 [VIII-18] cell line

Alternate name:

Class:
Conjugate:
Description: Breast cancer is widely and effectively treated with endocrine treatment. However, in many cases the tumours will eventually progress into an estrogen-independent and therapy-resistant phenotype. Retroviral insertion mutagenesis was used to generate this cell line in order to elucidate the molecular mechanisms underlaying endocrine therapy failure. Using this method the main genes conferring estrogen independence in human breast cancer cells where identified. Genes located in the immediate pr...
Purpose:
Parental cell: ZR-75-1
Organism: Human
Tissue: Breast
Model: Cancer Model
Gender:
Isotype:
Reactivity:
Selectivity:
Host:
Immunogen:
Immunogen UNIPROT ID:
Sequence:
Growth properties:
Production details: ZR-75-1 cells were infected with amphotropic, defective murine retrovirus and

plated in medium containing 1uM of 4-hydroxy-tamoxifen. Within 5 weeks after the start of selection proliferating colonies were individually picked and expanded to stable cell lines
Formulation:
Recommended controls:
Bacterial resistance:
Selectable markers:
Additional notes:

Target details

Target: Breast cancer anti-estrogen reistance genes

Target alternate names:

Target background:

Molecular weight:

Ic50:

Applications

Application:
Application notes: Breast cancer is widely and effectively treated with endocrine treatment. However, in many cases the tumours will eventually progress into an estrogen-independent and therapy-resistant phenotype. Retroviral insertion mutagenesis was used to generate this cell line in order to elucidate the molecular mechanisms underlaying endocrine therapy failure. Using this method the main genes conferring estrogen independence in human breast cancer cells where identified. Genes located in the immediate proximity of the retroviral integration site were characterised. Out of 15 candidate breast cancer antigen resistance (BCAR) genes, seven (AKT1, AKT2, BCAR1, BCAR3, EGFR2, GRB7 and TRERF1/BCAR2) were shown to directly underline estrogen independence. Cell line with unique integration events in the following genes, of which one is the most likely cause for estrogen independence: FLJ35036, LOC391679, FSTL5, TRPS1, RAP2C, SRD5AP1 and BNIP3LThis cell line is part of a panel of 71 cell lines (Cat No 154549-154619) plus the parental (Cat No 154547).These cell lines are a powerful tool for studying the molecular and cellular mechanisms of breast tumour progression, therapy resistance and to test the effectiveness of novel drugs to combat different modes of anti-estrogen insensitivity.

Handling

Format: Frozen
Concentration:
Passage number:
Growth medium: RPMI 1640 medium supplemented with 10% heat-inactivated bovine calf serum (RBCS)
Temperature:

Atmosphere:
Volume:
Storage medium:
Storage buffer:
Storage conditions: Liquid Nitrogen
Shipping conditions: Dry ice

Related tools

Related tools:

References

References: van Agthoven et al. 2009. Breast Cancer Res Treat. 114(1):23-30. PMID: 18351453.