

MCF7/164R-4 Cell Line

Catalogue number: 152101

Sub-type: Continuous

Images:

Contributor

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Images:

Tool details

***FOR RESEARCH USE ONLY**

Name: MCF7/164R-4 Cell Line

Alternate name: MCF-7/164R-4; 164R-4

Class:

Conjugate:

Description: The MCF7/164R-4 cell line is a breast cancer cell line resistant to fulvestrant (Faslodex). The MCF7/164R-4 cell line is a human breast cancer cell line established from MCF7. The cellular classification is epithelial, and their shape is polygonal. The passage number of this cell line is 403 (AL3810, AL3811). Treatment with the steroidal antiestrogen fulvestrant has proven effective upon progression on tamoxifen therapy and is now approved for second-line treatment after tamoxifen or aromatase inhibitors. As for tamoxifen treatment of advanced breast cancer, resistance will inevitably occur also for fulvestrant. Clarification of the molecular changes associated with the resistant growth is needed to find targeted treatments to resistant tumour cells and treatments that can inhibit or delay the emergence of resistance.

Purpose:

Parental cell: MCF7 S0.5

Organism: Human

Tissue: Breast

Model: Tumour line

Gender: Female

Isotype:

Reactivity:

Selectivity:

Host:

Immunogen:

Immunogen UNIPROT ID:

Sequence:

Growth properties:

Production details: The MCF7/164R-4 cell line has been established from a clone of MCF7/S0.5 cells surviving long term growth with the pure steroidal antiestrogen ICI 164,384 in 100 nM concentration. The MCF7/164R-4 cells are also resistant to the pure steroidal antiestrogen fulvestrant (ICI 182,780) and can be maintained continuously in growth medium with 100 nM fulvestrant.

Formulation:**Recommended controls:****Bacterial resistance:****Selectable markers:**

Additional notes: Upon withdrawal of fulvestrant, the cells express ER alpha, although at a reduced level compared to the parental MCF7/S0.5 cell line. The MCF7/164R-4 cells do not express progesterone receptor. The MCF7/164R-4 cells express increased level of EGFR, phosphorylated EGFR and phosphorylated ErbB3 and reduced level of ErbB4 compared to the parental MCF7/S0.5 cells.

Target details

Target: Oestrogen receptor

Target alternate names:

Target background:

Molecular weight:

Ic50:

Applications

Application: Investigation of signalling pathways involved in fulvestrant resistance

Application notes: Upon withdrawal of fulvestrant, the cells express ER alpha, although at a reduced level compared to the parental MCF7/S0.5 cell line. The MCF7/164R-4 cells do not express progesterone receptor. The MCF7/164R-4 cells express increased level of EGFR, phosphorylated EGFR and phosphorylated ErbB3 and reduced level of ErbB4 compared to the parental MCF7/S0.5 cells. Passage 403 (AL3810, AL3811)

Handling

Format: Frozen

Concentration:

Passage number: Passage 403 (AL3810, AL3811)

Growth medium: Phenol red free DMEM/F12 (1:1) supplemented with 1% FCS, Glutamax 2.5 mM and 6 ng/ml insulin. Supplemented with 100nM fulvestrant to maintain resistance.

Temperature: 37° C

Atmosphere:

5% CO₂

Volume:

Storage medium:

Storage buffer:

Storage conditions:

Shipping conditions: Dry ice

Related tools

Related tools:

References

References:

CancerTools.org