

LNCaP: ARF876L cell line

Catalogue number: 154163

Sub-type: Continuous

Images:

Contributor

Inventor:

Institute: Northern Institute For Cancer Research, Newcastle University

Images:

Tool details

***FOR RESEARCH USE ONLY**

Name: LNCaP: ARF876L cell line

Alternate name: AR, Dihydrotestosterone Receptor, Nuclear Receptor Subfamily 3 Group C Member 4, NR3C4, DHTR

Class:

Conjugate:

Description: LNCaP cells are androgen-sensitive human prostate adenocarcinoma cells derived from the left supraclavicular lymph node metastasis from a 50-year-old Caucasian male in 1977. The androgen receptor (AR) in LNCaP cells harbours a T877A mutations which enables the anti-androgen flutamide to act as an agonist. This cell line is the most commonly used for prostate cancer research. In approximately 30% CRPC, AR mutations are detected and are likely selected for under pressure by hormonal therapies. Mutations within the AR ligand-binding domain, the site of testosterone and anti-androgen binding, enable retention of AR signalling in the presence of hormonal therapies. Two AR LBD mutations are commonly detected in patients treated with bicalutamide and enzalutamide, W741L and F876L, respectively. These convert the activity of anti-androgens from antagonists to agonists and enable progression of CRPC. Modelling these mutations previously has been difficult and have been limited to, principally, luciferase-based assays in non-AR-expressing cell lines. We have therefore developed two key LNCaP cell derivatives that have stable expression of ARW741L (Cat No:154165) and ARF876L mutations which enables us to assess the activity of these aberrantly functioning receptors in a physiological background. Moreover, by depleting endogenous AR in LNCaP cells, we can provide a clean read-out for mutant AR activity that can be utilised for assessing efficacy of novel AR-targeting agents.

Purpose:

Parental cell: LNCaP

Organism: Human

Tissue:

Model:

Tumour line

Gender:

Isotype:

Reactivity:

Selectivity:

Host:

Immunogen:

Immunogen UNIPROT ID:

Sequence:

Growth properties:

Production details: HEK 293T cells were transfected with pLenti-FLAG-ARF876L to generate viral particles. Using a multiplicity of infection of 0.3 and 0.1, LNCaP cells were transduced with virus. Stable expressing clones were selected with 10⁻⁶g/ml blasticidin. Ectopic AR expression was determined by western blot.

Formulation:

Recommended controls:

Bacterial resistance:

Selectable markers:

Additional notes:

Target details

Target: Androgen Receptor

Target alternate names:

Target background:

Molecular weight:

Ic50:

Applications

Application:

Application notes:

Handling

Format: Frozen

Concentration:

Passage number:

Growth medium: RPMI-1640 + 10% FBS

Temperature:

Atmosphere:

Volume:

Storage medium:

Storage buffer:

Storage conditions:

Shipping conditions: Dry ice

Related tools

Related tools:

References

References:

CancerTools.org